

TWENTY-SIXTH

# ANNUAL REPORT

ON THE

SANITARY CONDITION OF THE

COMBINED DISTRICT

OF

# WEST SUSSEX,

FOR THE YEAR 1899,

BY

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# INDEX.

GENERAL REPORT...	xliii.
Population	i.
Births and birth-rates in Rural and Urban Districts	iii.
General mortality	v.
Deaths and death-rates in Rural and Urban Districts	vi.
Gain by excess of births over deaths	vii.
Influence of season on mortality	viii.
Infant mortality	viii.
Table I.—Births and birth-rates in 1876-99	ix.
Table II.—Deaths in each month in 1876-99	x.
Table III.—Deaths from five zymotic diseases in Rural and Urban Districts, 1876-99	xi.
Table IV.—Deaths from various causes in each Rural District, 1876-99	xii.
Table V.—Death-rates from various causes in the Combined District, 1876-99	xiii.
Table VI.—Death-rates from various causes in each Rural District, 1876-99	xiv.
Table VII.—New cases of infectious disease in the Combined District, 1895-99	xv.
Table VIII.—New cases of infectious disease in Rural Districts, 1895-99	xvi.
Zymotic mortality	xvii.
Table IX.—Deaths and death-rates from zymotic diseases in Rural Districts, 1876-99	xviii.
Table X.—Deaths and death-rates from zymotic diseases in Urban Districts, 1876-99	xix.
Table XI.—Bright Sunshine in the ten years, 1890-99	xx.
Table XII.—Accumulated heat in the ten years, 1890-99	xxi.
Table XIII.—Climate of Worthing	xxii-iii.
Sale of Food and Drugs Act, 1875 and 1879	xxiv.
Worthing Corporation Observatory	xxvii.
Meteorology	xxxi.
Swandean	xxxvii.
Table A.—Table of deaths during the year 1899, in the Combined District of West Sussex, classified according to diseases, ages, and localities	xl.
Table B.—Table of population, births, and of new cases of infectious sickness, coming to the knowledge of the Medical Officer of Health during the year 1899, in the Combined District of West Sussex, classified according to diseases, ages, and localities...	xlii.

# INDEX (Continued).

STEYNING WEST DISTRICT...	1-16	Thakeham District (continued).	
Population...	1	Pollution of a Stream at	
Births and birth-rate	3	Washington ...	78
General mortality...	3	Legal proceedings	79
Infant mortality ...	4	Systematic inspection	79
Zymotic mortality	4	Scavenging and cleansing	80
Water supply ...	6	Miscellaneous ...	80
Southwick drainage and		Inquests ...	81
sewerage ...	5	Statistical tables ...	82-88
Systematic inspection	7		
Scavenging and cleansing	8	EAST PRESTON DISTRICT ...	89-110
Cowsheds and dairies	8	Population...	89
Miscellaneous ...	8	Births and birth-rate	92
Inquests ...	9	General mortality...	92
Statistical tables ...	10-16	Infant mortality ...	93
		Zymotic mortality	94
STEYNING EAST DISTRICT ..	17-30	Broadwater ...	95
Population...	17	Littlehampton and Wick	96
Births and birth-rate	19	Isolation hospital at Swan-	
General mortality	19	dean ...	99
Infant mortality ...	20	Scavenging and cleansing	100
Zymotic mortality	20	Systematic inspection	100
Miscellaneous ...	21	Miscellaneous ...	101
Inquests ...	22	Inquests ...	101
Statistical tables ...	23-30	Statistical tables ...	103-110
HORSHAM DISTRICT (Rural)	31-56	MIDHURST DISTRICT ...	111-130
Population...	31	Population ...	111
Births and birth-rate	33	Births and birth-rate	114
General mortality	34	General mortality	114
Infant mortality ...	35	Infant mortality ...	116
Zymotic mortality	35	Zymotic mortality	116
Scarlatina ...	36	Water supply regulations	118
Drainage of Roffey	37	Systematic inspection	121
Ifield and Crawley water		Scavenging and cleansing	122
supply and drainage ...	42	Duck Lane, Midhurst	122
New houses	45	Legal proceedings	122
Systematic inspection	44	Water supply	122
Miscellaneous ...	47	Miscellaneous ...	123
Rainfall ...	47	Inquests ...	123
Inquests ...	48	Statistical tables ...	124-130
Statistical tables ...	49-56		
		WESTBOURNE DISTRICT ...	131-146
PETWORTH DISTRICT ...	57-72	Population...	131
Population...	57	Births and birth-rate	133
Births and birth-rate	59	General mortality...	133
General mortality	60	Infant mortality ...	134
Infant mortality ...	60	Zymotic mortality	135
Zymotic mortality	61	Scarlatina ...	136
Water supply ...	69	Miscellaneous ...	137
Systematic inspection	63	Sunshine ...	138
Legal proceedings	63	Rainfall ...	139
Miscellaneous ...	63	Inquests ...	139
Inquests ...	64	Statistical tables ...	140-146
Statistical tables ...	65-72		
		WORTHING DISTRICT ...	147-164
THAKEHAM DISTRICT ..	73-88	Population ..	147
Population...	73	Births and birth-rate	148
Births and birth-rate	75	General mortality...	148
General mortality...	75	Infant mortality ...	150
Infant mortality ...	76	Zymotic mortality	151
Zymotic mortality	77	Water supply	153
		Systematic inspection	153



# INDEX (Continued).

## Worthing District (continued).

Inquests ... ..	156
Statistical tables ... ..	157-164

## LITTLEHAMPTON DISTRICT ... 165-176

Population .. ..	165
Births and birth-rate ... ..	165
General mortality... ..	166
Infant mortality ... ..	167
Zymotic mortality ... ..	167
Scavenging and cleansing	168
Miscellaneous ... ..	168
Inquests ... ..	169
Statistical tables ... ..	170-176

## ARUNDEL DISTRICT ... 177-190

Population... ..	177
Births and birth-rate ... ..	177
General mortality... ..	178
Infant mortality ... ..	179
Zymotic mortality ... ..	179
Water supply ... ..	180
Drainage and sewerage ... ..	181
Miscellaneous ... ..	181
Rainfall ... ..	181
Inquests . . . . .	182
Statistical tables ... ..	183-190

## HORSHAM DISTRICT (Urban) 191-206

Population ... ..	191
Births and birth-rate ... ..	191
General mortality ... ..	192
Infant mortality ... ..	193
Zymotic mortality .. ..	193
Horsham cottage hospital	194
Water supply ... ..	194
Sewage and drainage ... ..	196
Systematic inspection ... ..	196
Miscellaneous ... ..	196
Inquests ... ..	198
Statistical tables ... ..	199-206

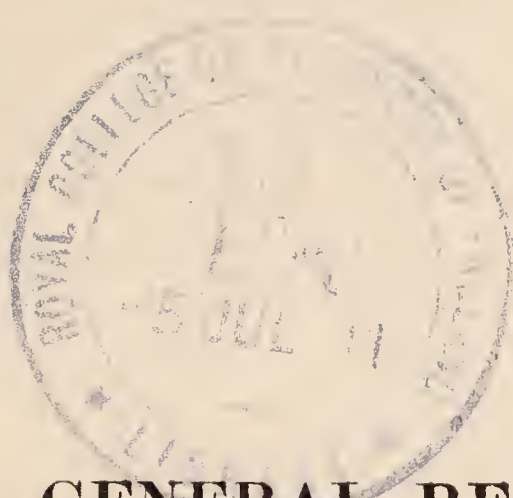
## PORTSLADE-BY-SEA DISTRICT 207-221

Population ... ..	207
Births and birth-rate ... ..	207
General mortality ... ..	208
Infant mortality ... ..	208
Zymotic mortality ... ..	209
Water supply ... ..	210
Drainage and sewerage ... ..	210
Bexley system ... ..	210
Scavenging and cleansing	211
Hospital accommodation...	212
Miscellaneous ... ..	213
Systematic inspection ... ..	214
Inquests ... ..	214
Statistical tables ... ..	215-221

COMBINED WEST SUSSEX DISTRICT.  
GENERAL REPORT.

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# GENERAL REPORT

ON THE

## HEALTH OF THE COMBINED DISTRICT OF WEST SUSSEX.

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### POPULATION.

The combined District is formed at the present time by the union of eight rural with six urban districts.

The combination, when originally created in 1874, was made up of five rural and three urban districts. Midhurst joined in 1876 and Westbourne in 1880, thus making seven rural districts.

At the end of 1894 Steyning was divided into two rural portions, thus raising the number to eight. West Worthing was united to Worthing in 1890, thus reducing the number of urban districts to two, while Arundel joined in 1882, and Horsham in 1891, thus raising the number to four.

Portslade-by-Sea is a new Urban District taken out of the Steyning East Rural District, on March 31st, 1898. Southwick is a new Urban District taken out of the Steyning West Rural District, on Michaelmas Day, 1899; it is included here in Steyning West Rural District for 1899. The figures given below in *italics* show the population of these new areas in each census year, but these figures are not added in the total, as already they have been entered under the "Steyning Rural District."

For comparative purposes, the population of all the present thirteen districts is here given at each of the last four census periods, and also the number estimated as living in each area in the middle of 1899.

ii.

Rural District.	Census, 1861.	Census, 1871.	Census, 1881.	Census, 1891.	Middle of 1899.
Steypning ..	11,018	14,060	16,325	19,110	$\left\{ \begin{array}{l} \text{w. } 11,750 \\ \text{E. } 2,350 \end{array} \right.$
Horsham ..	17,876	19,935	15,426	16,798	19,470
Petworth ..	10,065	10,147	9,594	9,431	9,340
Thakeham ..	8,036	8,335	8,285	8,049	8,000
East Preston	6,716	7,674	8,025	8,692	10,000
Midhurst ..	12,608	13,042	13,965	14,236	14,450
Westbourne ..	6,957	7,221	7,420	7,084	6,930
Urban District.					
Worthing ..	5,805	7,413	10,976	16,606	21,600
West Worthing	54	276	689		
Littlehampton	2,350	3,266	3,926	4,452	6,000
Arundel ..	2,498	2,956	2,748	2,644	2,640
Horsham ..	—	—	6,874	8,087	9,000
Portslade-by-Sea	1,103	2,344	3,708	4,240	5,000
Southwick ..	1,358	2,339	2,561	2,564	3,050
Rural ..	73,276	80,414	79,040	83,400	82,290
Urban ..	10,707	13,911	25,213	31,789	44,240
Total	83,983	94,325	104,253	115,189	126,530

For the purposes of this Report the population in the middle of the undermentioned periods is taken as the basis of the calculations.

Period.	1876-80.	1881-85.	1886-90.	1891-95.	1899.
Rural Districts	69,640	80,150	82,340	84,830	82,290
Urban Districts	13,990	19,350	21,990	33,230	44,240
Total ..	83,630	99,500	104,330	118,060	126,530

The combined district, when it was originally formed in 1874, had an estimated population of 74,797; the estimate for the middle of 1899 is reckoned at 126,530, an increase of 51,733 persons, or 69·16 per cent.

The growth of the district is in a great measure due to an increased area whereby more persons come within the combination.

The changes in population since 1874 may thus be summarised:—

Year.	Rural.	Urban.	Total.
1874 ..	62,840	11,957	74,797
1881 ..	79,040	15,591	94,631
1891 ..	83,400	23,702	107,102
1897 ..	85,790	37,370	123,160
1899 ..	82,290	44,240	126,530
Increase in 1899 over 1874 ..	19,450	32,283	51,733



## BIRTH AND BIRTH-RATE.

During the year 1899, the births of 2,879 children were registered, of these 1,493 were male, and 1,386 were female.

Table I. shows the various changes in the birth-rate during the twenty-four years 1876-99. There has been a gradual decline in the number of births, and this decline is general throughout the country.

The births and birth-rates in each of the past nine years are here shown :—

Year.	Population.	Births.		Total.	Rate per 1,000.
		Male.	Female.		
1891 ..	107,350 ..	1,444 ..	1,393 ..	2,837 ..	26·43
1892 ..	116,740 ..	1,519 ..	1,316 ..	2,835 ..	24·28
1893 ...	118,060 ..	1,551 ..	1,453 ..	3,004 ..	25·44
1894 ..	116,460 ..	1,468 ..	1,424 ..	2,892 ..	24·83
1895 ..	119,140 ..	1,486 ..	1,392 ..	2,878 ..	24·16
1896 ..	120,910 ..	1,464 ..	1,412 ..	2,876 ..	23·78
1897 ..	123,160 ..	1,486 ..	1,377 ..	2,863 ..	23·25
1898 ..	124,350 ..	1,418 ..	1,471 ..	2,889 ..	23·15
1899 ..	126,530 ..	1,493 ..	1,386 ..	2,879 ..	22·75

The birth-rate reached its highest point in 1879, when it was 31·12 per 1,000; in the five-year period, 1876-80, it was 30·6; in 1881, when the population was only 94,860, there were 2,868 births, and there were only 11 more births in 1899 with a population of 126,530.

Table I. shows also the number of the births in each quarter of the year; they are most numerous in the first quarter, and they decline gradually through the rest of the year; taking each year separately, there are slight variations, but this is the general rule.

More boys are born than girls, and the difference amounted to 1,823 in the twenty-four years 1876-99, or in the proportion of 106 boys to every 100 girls born. The years 1880 and 1898 were the only years of the series in which the female births exceeded the male births.

The mean annual birth-rate in this combined district is here contrasted with similar figures for England and Wales :—

Period.	Births.		Birth-rate.	
	West Sussex.	West Sussex.	England.	
1876-80 .. ..	12,818 ..	30·60 ..	35·4	
1881-85 .. ..	14,556 ..	29·60 ..	33·5	
1886-90 .. ..	13,858 ..	26·57 ..	31·4	
1891-95 .. ..	14,446 ..	25·03 ..	30·5	
1896 .. ..	2,876 ..	23·78 ..	29·7	
1897 .. ..	2,863 ..	23·25 ..	29·7	
1898 .. ..	2,889 ..	23·15 ..	29·4	
1899 .. ..	2,879 ..	22·75 ..	29·3	

## BIRTHS AND BIRTH-RATES, 1876-99.

## COMBINED DISTRICT.

Period.	Male.	Female	Total.	Mean annual rate per 1,000.
1876-80 ..	6,546 ..	6,272 ..	12,818 ..	30·60
1881-85 ..	7,549 ..	7,007 ..	14,556 ..	29·60
1886-90 ..	7,080 ..	6,778 ..	13,858 ..	26·57
1891-95 ..	7,468 ..	6,978 ..	14,446 ..	25·03
1896 ..	1,464 ..	1,412 ..	2,876 ..	23·78
1897 ..	1,486 ..	1,377 ..	2,863 ..	23·25
1898 ..	1,418 ..	1,471 ..	2,889 ..	23·15
1899 ..	1,493 ..	1,386 ..	2,879 ..	22·75
1876-99 ..	34,504 ..	32,681 ..	67,185 ..	27·16
Per cent. . .	51·36 ..	48·64 ..	100·00	

## RURAL DISTRICTS.

Period.	Male.	Female.	Total.	Mean annual rate per 1,000.
1876-80 ..	5,546 ..	5,329 ..	10,875 ..	31·19
1881-85 ..	6,272 ..	5,864 ..	12,136 ..	30·29
1886-90 ..	5,678 ..	5,518 ..	11,196 ..	27·20
1891-95 ..	5,608 ..	5,260 ..	10,868 ..	23·93
1896 ..	1,071 ..	1,018 ..	2,089 ..	24·60
1897 ..	1,097 ..	957 ..	2,054 ..	23·94
1898 ..	944 ..	973 ..	1,917 ..	23·52
1899 ..	982 ..	911 ..	1,893 ..	23·00
1876-99 ..	27,198 ..	25,830 ..	53,028 ..	27·42
Per cent. . .	51·29 ..	48·71 ..	100·00	

## URBAN DISTRICTS

Period.	Male.	Female.	Total.	Mean annual rate per 1,000.
1876-80 ..	1,000 ..	943 ..	1,943 ..	27·66
1881-85 ..	1,277 ..	1,143 ..	2,420 ..	26·68
1886-90 ..	1,402 ..	1,260 ..	2,662 ..	24·23
1891-95 ..	1,860 ..	1,718 ..	3,578 ..	22·66
1896 ..	393 ..	394 ..	787 ..	21·82
1897 ..	389 ..	420 ..	809 ..	21·65
1898 ..	474 ..	498 ..	972 ..	22·69
1899 ..	511 ..	475 ..	986 ..	22·28
1876-98 ..	7,306 ..	6,851 ..	14,157 ..	24·77
Per cent. . .	51·61 ..	48·39 ..	100·00	

## GENERAL MORTALITY.

During the year 1899, the deaths of 1,836 persons were registered, and of these 915 were male, and 921 were female. Estimating the population in the middle of the year at 126,530, the death-rate was equal to 14·51 per 1,000 persons living.

District.	Deaths.			Total.	Death-rate in 1899.
	Males.	Females.			
Steyning West ..	71	79	..	150	12·76
Steyning East ..	8	13	..	21	8·93
Horsham .. ..	134	124	..	258	13·25
Petworth .. ..	61	44	..	105	11·24
Thakeham .. ..	58	49	..	107	13·37
East Preston ..	83	79	..	162	16·20
Midhurst .. ..	95	93	..	188	13·01
Westbourne ..	63	48	..	111	16·00
Worthing .. ..	153	181	..	334	15·46
Littlehampton ..	44	55	..	99	16·50
Arundel .. ..	20	28	..	48	18·18
Horsham .. ..	86	74	..	160	17·78
Portslade-by-Sea ..	39	54	..	93	18·30
<hr/>					
Total .. ..	915	921	..	1,836	14·51

There were 1,848 deaths registered in the combined district, but to this number there should be added the deaths of 9 persons in New Shoreham Workhouse which is outside the area, and from this number there should be deducted the deaths of 21 persons in Hangleton Hospital among persons not belonging to this district, leaving the corrected total at 1,836.

All deaths among visitors at Worthing or Littlehampton are included in the district where each death occurred, and all Workhouse deaths are transferred to the parish whence each inmate came.

The figures given in Table B for each district are, with the above exceptions, only transfers from one part of the combined district to another part.



The deaths and death-rates in each of the past nine years are here given:—

Year.	Population.	Deaths.		Total.	Rate per 1,000.
		Male.	Female.		
1891 ..	107,350 ..	951 ..	863 ..	1,814 ..	16·90
1892 ..	116,740 ..	990 ..	946 ..	1,936 ..	16·58
1893 ..	118,060 ..	961 ..	938 ..	1,899 ..	17·08
1894 ..	116,460 ..	770 ..	752 ..	1,522 ..	13·07
1895 ..	119,140 ..	891 ..	890 ..	1,781 ..	14·95
1896 ..	120,910 ..	816 ..	777 ..	1,593 ..	13·17
1897 ..	123,160 ..	861 ..	773 ..	1,634 ..	13·27
1898 ..	124,350 ..	872 ..	813 ..	1,685 ..	13·55
1899 ..	126,530 ..	915 ..	921 ..	1,836 ..	14·51

The death-rate in England and Wales in 1899 was equal to 18·3 per 1,000 of the population; it was 0·1 per 1,000 lower than the rate in the ten previous years, 1889-98; the mortality is much higher in large towns than in country districts.

A comparison is here made between the rates prevailing in West Sussex and in England and Wales during the twenty years 1876-95 and in 1896-99.

Period.	West Sussex.		Town Districts.		Country Districts.		England.	
1876-80	..	15·51	..	22·4	..	21·2	..	20·8
1881-85	..	14·61	..	20·4	..	17·5	..	19·4
1886-90	..	14·48	..	20·0	..	17·1	..	18·9
1891-95	..	15·52	..	19·5	..	17·3	..	18·7
1896	..	13·17	..	18·0	..	15·3	..	17·1
1897	..	13·27	..	18·2	..	15·8	..	17·4
1898	..	13·55	..	18·3	..	16·0	..	17·6
1899	..	14·51	..	19·2	..	16·3	..	18·3

## DEATHS AND DEATH-RATES, 1876-99.

### COMBINED DISTRICT.

Period.	Male.		Female.		Total.		Annual rate per 1,000.
1876-80 ..	3,440	..	3,056	..	6,496	..	15·51
1881-85 ..	3,779	..	3,416	..	7,195	..	14·61
1886-90 ..	3,955	..	3,595	..	7,550	..	14·48
1891-95 ..	4,563	..	4,389	..	8,952	..	15·52
1896 ..	816	..	777	..	1,593	..	13·17
1897 ..	861	..	773	..	1,634	..	13·27
1898 ..	872	..	813	..	1,685	..	13·55
1899 ..	915	..	921	..	1,836	..	14·51
<hr/>							
1876-99	19,201	..	17,740	..	36,941	..	14·80
<hr/>							
Per cent.	51·98	..	48·02	..	100·00	..	—



## RURAL DISTRICTS.

Period.	Male.		Female.		Total.		Annual rate per 1,000.
1876-80 ..	2,906	..	2,482	..	5,388	..	15·46
1881-85 ..	3,121	..	2,753	..	5,874	..	14·65
1886-90 ..	3,112	..	2,727	..	5,839	..	14·19
1891-95 ..	3,311	..	2,977	..	6,288	..	14·99
1896 ..	555	..	513	..	1,068	..	12·57
1897 ..	608	..	507	..	1,115	..	13·00
1898 ..	576	..	506	..	1,082	..	13·27
1899 ..	573	..	529	..	1,102	..	13·39
1876-99 ..	14,762	..	12,994	..	27,756	..	14·53
Per cent. ..	53·18	..	46·82	..	100·00	..	—

## URBAN DISTRICT.

Period.	Male.		Female.		Total.		Annual rate per 1,000.
1876-80 ..	534	..	574	..	1,108	..	15·69
1881-85 ..	658	..	663	..	1,321	..	14·53
1886-90 ..	843	..	868	..	1,711	..	15·59
1891-95 ..	1,252	..	1,412	..	2,664	..	17·03
1896 ..	261	..	264	..	525	..	14·59
1897 ..	253	..	266	..	519	..	13·90
1898 ..	296	..	307	..	603	..	14·08
1899 ..	342	..	392	..	734	..	16·59
1876-99 ..	4,439	..	4,746	..	9,185	..	15·55
Per cent. ...	48·33	..	51·67	..	100·00	..	—

## GAIN BY EXCESS OF BIRTHS OVER DEATHS.

In the combined district there were 67,185 births and 36,941 deaths in the twenty-four years, 1876-99, so that the increase of population from this source was 30,244.

	RURAL.				URBAN.		
	Male.	Female.	Total.		Male.	Female.	Total.
Births ..	27,198	25,830	53,028	..	7,306	6,851	14,557
Deaths ..	14,762	12,994	27,756	..	4,439	4,746	9,185
Excess of Births	12,436	12,836	25,272	..	2,867	2,105	4,972

## INFLUENCE OF SEASON ON MORTALITY.

Table II. shows the deaths taking place in each month in 1876-95, and in 1896-99,

Deaths are more frequent in the cold months than in the warm months of the year; hence the death-rate is highest in the first quarter, it declines through the second quarter, reaching its lowest point in the third quarter, and rising again as winter advances.

Eighteen hundred and ninety-nine was an exceptional year; a mild winter caused a low death-rate, while a very warm summer raised the death-rate in the autumn.

In each quarter of the twenty-four years 1876-99 the deaths were thus recorded :—

Period.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.
1876-80 ..	1,864	1,645	1,468	1,519	6,496
1881-85 ..	1,978	1,790	1,686	1,741	7,195
1886-90 ..	2,237	1,827	1,664	1,820	7,550
1891-95 ..	2,893	2,113	1,946	2,000	8,952
1876-95 ..	8,972	7,377	6,764	7,080	30,193
Per cent ..	29·71	24·43	22·41	23·45	100·00
1896 ..	429	347	380	437	1,539
1897 ..	492	372	389	381	1,634
1898 ..	531	353	421	380	1,685
1899 ..	439	379	516	502	1,836

More persons die in cold than in hot weather; this may be more readily seen by dividing the year into three parts according to temperature :—

	Deaths.	Per Cent.
Cold.—December to March .. ..	14,112	38·2
Moderate.—April, May, Oct., Nov.	11,729	31·8
Hot.—June to September .. ..	11,100	30·0
Total	36,941	100·0

### INFANT MORTALITY.

During the year 1899 there were 348 deaths of infants under one year of age, out of a total of 1,836 deaths from all causes; of these 186 were male and 162 were female.

There were 2,879 births, so that the infant mortality, as measured by the number of deaths under one year of age to every 1,000 children born, was 121 against a rate of 77, 97, 113, 106, 102, 84, 105, 98, 109 and 110 in the ten preceding years, or a mean rate of 100·1 per 1,000 births.

Throughout England and Wales the rate of infant mortality in 1899 was equal to 163 per 1,000, the mean proportion in the preceding ten years having been 151. In large towns the infantile death rate is very much higher.

TABLE I.—Showing the Births and Birth-rates in the twenty years, 1876-95, and in 1896-99.

PERIOD.	FIRST QUARTER.			SECOND QUARTER.			THIRD QUARTER.			FOURTH QUARTER.			TOTAL.			Annual birth-rate per 1,000 persons living.
	M	F.	TL.	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.	
1876-80 ..	1,610	1,671	3,281	1,650	1,590	3,240	1,612	1,509	3,121	1,674	1,502	3,176	6,546	6,272	12,878	30.60
1887-85 ..	1,991	1,858	3,849	1,990	1,693	3,593	1,873	1,741	3,614	1,785	1,715	3,500	7,549	7,007	14,556	29.60
1886-90 ..	1,776	1,729	3,505	1,840	1,730	3,570	1,733	1,651	3,384	1,731	1,668	3,399	7,080	6,778	13,858	26.57
1891-95 ..	1,948	1,801	3,749	1,893	1,762	3,655	1,827	1,738	3,565	1,800	1,677	3,477	7,468	6,978	14,446	25.03
1896 ..	370	338	708	384	387	771	353	375	728	357	312	669	1,464	1,412	2,876	23.78
1897 ..	381	362	743	365	315	680	363	359	722	377	341	718	1,486	1,377	2,863	23.25
1898 ..	374	346	720	342	373	715	346	404	750	356	348	704	1,418	1,471	2,889	23.15
1899 ..	355	344	699	378	347	725	398	369	767	362	326	688	1,493	1,386	2,879	22.75
Total..	8,805	8,449	17,254	8,752	8,197	16,949	8,505	8,146	16,651	8,442	7,889	16,331	34,504	32,681	67,185	27.16
Per cent..	..	..	25.68	..	..	25.23	..	..	24.78	..	..	24.31	..	..	100.00	8.



TABLE II.—Showing the Deaths in each Month in the twenty years, 1876-95, and in 1896-99.

Month.	1876-80.	1881-85.	1886-90.	1891-95.	Mean. 1876-95.	1896.	1897.	1898.	1899.
January ..	632	683	677	1,110	155.1	154	173	191	143
February ..	633	619	723	850	141.2	135	152	180	164
March ..	599	676	837	933	152.2	140	167	160	132
April ..	601	624	693	788	135.3	127	128	119	131
May ..	550	603	640	700	124.6	112	128	119	135
June ..	494	563	496	625	108.9	108	116	115	113
July ..	433	533	540	651	107.8	116	128	110	129
August ..	511	589	560	659	115.9	137	131	144	167
September ..	524	564	564	636	114.4	127	130	167	220
October ..	473	535	588	647	112.1	118	123	140	143
November ..	479	590	562	618	112.4	154	116	109	136
December ..	567	616	670	735	129.4	165	142	131	223
Total ..	6,496	7,195	7,550	8,952	1,509.6	1,593	1,634	1,685	1,836



TABLE III.—Showing the Deaths in the Rural and Urban Districts from five Zymotic Diseases in the twenty years, 1876-95, and in 1896-99.

PERIOD.	RURAL.						URBAN.				
	Deaths from					Population.	Deaths from				Population.
	Scarlatina.	Diphtheria.	Measles.	Whooping Cough.	Diarrhoea.		Scarlatina.	Diphtheria.	Measles.	Whooping Cough.	Diarrhoea.
1876-80	56	66	48	124	118	69,640	26	10	15	27	34
1881-85	73	147	35	100	92	80,150	7	10	20	14	28
1886-90	25	83	58	136	105	82,340	24	19	13	55	36
1891-95	10	144	58	111	79	84,830	6	45	61	39	59
1896	2	24	13	37	10	84,935	—	44	19	12	6
1897	—	11	11	23	22	85,790	2	19	—	17	11
1898	5	13	5	10	35	81,510	4	5	11	3	32
1899	5	18	1	24	31	82,290	—	12	1	5	48
Total	176	506	229	565	492		69	164	140	172	254

TABLE IV.—Showing the Deaths from various causes in each Rural District in the twenty years, 1876-95, and in 1896-99.

Period, 1876-98.	Notifiable.							Non-notifiable.							Lung Disease.	Heart Disease.	All Diseases.
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Group.	FEVERS.			Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.						
					Typhus.	Enteric.	Continued.					Puerperal.	Erysipelas.				
Steyning West	—	23	54	2	7	45	5	6	17	21	66	67	3	302	444	270	3,152
Steyning East*	1	28	26	3	1	17	1	4	6	28	64	102	9	158	284	156	1,857
Horsham†	7	25	69	1	2	20	8	8	12	59	84	64	9	421	811	396	4,506
Petworth..	2	9	63	—	—	20	—	4	6	10	39	20	5	268	504	292	3,003
Thakeham	1	25	52	1	2	19	—	6	13	10	69	33	5	221	436	240	2,462
East Preston	—	25	47	2	—	38	1	2	6	19	42	57	2	214	381	225	2,502
Midhurst..	10	28	81	2	1	41	2	4	18	37	72	30	16	391	581	443	4,252
Westbourne (1881-95).	—	1	48	2	—	22	—	2	8	15	35	21	5	137	323	119	1,655
Total	21	164	440	13	13	222	17	36	86	199	471	394	54	2,112	3,764	2,141	23389
1896	2	2	24	2	—	10	—	—	1	13	37	10	3	72	145	147	1,068
1897	—	—	11	3	—	7	—	—	4	11	23	22	5	98	120	132	1,115
1898	—	5	13	1	—	6	—	1	3	5	10	35	2	73	138	141	1,082
1899	—	5	18	1	—	12	—	—	1	1	24	31	5	71	140	131	1,102

\* Excluding Aldrington after Sept. 30th, 1893, and Portslade-by-Sea after Dec. 31st, 1897. † Including Cowfold in 1895-99.

TABLE V.—Showing the Deaths and Death-rate per 100,000 persons living in the Combined District from all causes and from various causes in the twenty years, 1876-95, and in 1896-99.

DEATHS.  
DEATH-RATE PER 100,000.

Period.	All Diseases.	Zymotic.		Phthisis.	Lung Disease.	Heart Disease.	Population in the middle of each period.	All Diseases.	Zymotic.		Phthisis.	Lung Disease.	Heart Disease.
		Notifiable.	Non-notifiable.						Notifiable.	Non-notifiable.			
1876-80 ..	6,496	267	379	714	950	549	83,630	1,552	64	90	170	225	131
1881-85 ..	7,195	378	309	691	1,081	655	99,500	1,428	76	62	139	217	132
1886-90 ..	7,550	260	443	725	1,206	772	104,330	1,448	50	85	139	236	148
1891-95 ..	8,952	515	779	631	1,412	898	118,060	1,554	88	134	110	247	156
1896 ..	1,593	93	102	111	201	213	120,910	1,317	77	84	92	166	176
1897 ..	1,634	50	90	138	173	193	123,160	1,327	41	73	112	140	153
1898 ..	1,685	40	98	120	202	210	124,350	1,355	32	79	96	162	169
1899 ..	1,836	58	115	125	221	221		1,451	46	91	99	175	175
Total ..	36,941	1,661	2,315	3,255	5,446	3,711		1,473	66	91	133	220	146



TABLE VI.—Showing the Death-rate per 100,000 persons living from all causes, and from various causes, in the Rural Districts during the twenty years, 1876-95, and the corrected Death-rate.

Rural District.	Corrected Death-rate.	All Diseases.	Notifiable.	Non-notifiable.	Phthisis.	Lung Disease.	Heart Disease.
Steyning West } ..	1,375	1,440	{ 74	73	140	205	125
Steyning East } ..			{ 67	152	123	201	113
Horsham .. ..	1,310	1,394	48	68	132	251	122
Petworth .. ..	1,371	1,570	54	39	139	263	153
Thakeham .. ..	1,298	1,498	72	71	135	265	145
East Preston .. ..	1,266	1,483	72	71	128	223	134
Midhurst .. ..	1,367	1,494	66	55	138	203	155
Westbourne (1881-95)	1,284	1,501	77	71	123	293	107



TABLE VII.—Showing the New Cases of Infectious Diseases notified in the Combined District during the five years, 1895-99, and the deaths therefrom.

	New Cases Notified.					Total.	Deaths.				
	1895.	1896.	1897.	1898.	1899.		1895.	1896.	1897.	1898.	1899.
Small Pox ..	—	50	—	—	—	50	—	2	—	—	—
Scarlatina ..	116	132	126	492	346	1,212	20	2	2	9	5
Diphtheria ..	250	293	176	197	258	1,174	200	54	68	18	30
Membranous Croup ..	4	4	4	1	1	14	11	2	3	1	2
Enteric Fever ..	64	84	79	69	100	396	59	8	15	7	18
Continued Fever ..	9	—	2	—	—	11	—	—	—	—	—
Relapsing Fever ..	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ..	3	4	9	5	3	24	4	1	1	2	—
Erysipelas ..	90	73	70	66	85	384	19	7	2	3	3
Total ..	536	640	466	830	793	3,265	315	74	93	50	58
Urban cases ..	153	262	155	330	213	1,113	143	34	52	11	21
Rural cases ..	383	378	311	500	580	2,152	172	40	41	29	37

TABLE VIII.—Showing the New Cases of Infectious Diseases notified in the Rural Districts during the five years, 1895-99, and the deaths therefrom.

Disease.	New Cases Notified.					Deaths.					
	1895.	1896.	1897.	1898.	1899.	Total.	1895.	1896.	1897.	1898.	1899.
Small Pox .. ..	—	32	—	—	—	32	2	2	—	—	—
Scarlatina .. ..	98	95	74	249	277	793	13	2	—	5	5
Diphtheria .. ..	151	134	114	153	182	734	91	24	11	13	18
Membranous Croup ..	4	2	4	1	1	12	9	2	3	1	1
Enteric Fever .. ..	59	66	67	52	72	316	43	10	7	6	12
Continued Fever .. ..	8	—	2	—	—	10	—	—	—	—	—
Relapsing Fever .. ..	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever .. ..	3	1	4	4	2	14	2	—	—	1	—
Erysipelas .. ..	60	48	46	41	46	241	12	1	4	3	1
Total .. ..	383	378	311	500	580	2,152	172	41	25	29	37

ZYMOTIC MORTALITY.

Out of 1,836 deaths from all causes in 1899, 173 were due to this class of disorders, or 1·37 per 1,000 persons living.

In England and Wales the rate from only the seven principal zymotic disorders was equal to 2·21 per 1,000 persons living, against 2·22, 2·14, 1·90, 2·00, 2·52, 1·81, 2·17, 2·21, 2·17, and 2·22 in the ten preceding years.

There were in this district 58 deaths, or 0·46 per 1,000, from diseases in 1899, which are notifiable, and 115 deaths, or 0·91 per 1,000 in the other class, where the number of cases cannot be obtained.

Notifiable.				Not-notifiable			
Diseases.			Deaths.	Diseases.			Deaths
Small Pox	..	..	none	Measles	..	..	2
Scarlatina	..	..	5	Whooping Cough	..	..	29
Diphtheria	..	..	30	Diarrhœa and Dysentery	..	..	79
Membranous Croup	..	..	2	Rheumatic Fever	..	..	5
Fever	{ Typhus	..	..	none			
	{ Enteric	..	..	18			
	{ Continued	..	..	none			
	{ Relapsing	..	..	none			
	{ Puerperal	..	..	none			
Cholera	..	..	..	none			
Erysipelas	..	..	..	3			
Total			58	Total			115

There were 68 deaths from Influenza.

The Infectious Disease (Notification) Act, 1889, came into operation at various periods in the years 1890 and 1891, except in Horsham Urban District where it came into operation on July 8th, 1896.

In each quarter of 1899 the new cases of Infectious Disease were thus registered:—

			1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Year.
Small Pox	..	..	—	—	—	—	—
Scarlatina	..	..	60	48	96	142	346
Diphtheria	..	..	43	39	77	99	258
Membranous Croup	..	..	—	—	—	1	1
Enteric Fever	..	..	15	25	41	19	100
Continued Fever	..	..	—	—	—	—	—
Puerperal Fever	..	..	3	—	—	—	3
Erysipelas	..	..	20	15	23	27	85
Total			141	127	237	288	793
Urban Cases	..	..	34	24	65	90	213
Rural Cases	..	..	107	103	172	198	580



TABLE IX.—Showing the Deaths and Death-rate from Zymotic Diseases in the Rural Districts in the twenty-years, 1876-95, and in 1896-99.

Period.	Notifiable.						Non-notifiable.				Total.		Total	Mean annual Death-rate per 100,000 persons living.					
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.			Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Notifiable.		Non- Notifiable.	Notifiable.	Non- notifiable.	Total.		
					Erysipelas.	Puerperal.	Continued.												
1876-80..	6	56	66	—	4	46	10	15	14	48	124	118	10	217	300	517	62	86	148
1881-85..	7	73	147	—	5	57	5	11	36	35	100	92	15	341	242	583	85	60	145
1886-90..	2	25	83	—	4	52	2	8	16	58	136	105	10	192	309	501	47	75	122
1891-95..	6	10	144	13	—	67	—	2	20	58	111	79	19	262	267	529	62	63	125
1896 ..	2	2	24	2	—	10	—	—	1	13	37	10	3	41	63	104	48	74	122
1897 ..	—	—	11	3	—	7	—	—	4	11	23	22	5	25	61	86	29	71	100
1898 ..	—	5	13	1	—	6	—	1	3	5	10	35	2	29	52	81	35	64	99
1899 ..	—	5	18	1	—	12	—	—	1	1	24	31	5	37	61	98	45	74	119
Total ..	23	176	506	20	13	257	17	37	95	229	565	492	69	1,144	1,355	2,499	60	71	131

Table X.—Showing the Deaths and Death-rate from Zymotic Diseases in the Urban Districts in the twenty years 1876-95, and in 1896-99.

Period.	Notifiable.								Non-notifiable.				Total.		Total.	Mean annual Death-rate per 100,000 persons living.			
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.				Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Notifiable.	Non- notifiable.					
					Typhus.	Enteric.	Continued.	Puerperal.								Erysipelas.			
1876-80..	—	26	10	—	—	7	1	4	2	15	27	34	3	50	79	129	71	113	184
1881-85..	—	7	10	—	—	12	3	1	4	20	14	28	5	37	67	104	38	69	107
1886-90..	1	24	19	—	—	17	1	1	5	13	55	36	5	68	109	177	61	99	160
1891-95..	4	6	45	2	—	181	—	3	12	61	39	59	4	253	163	416	152	98	250
1896 ..	—	—	44	1	—	5	—	1	1	19	12	6	2	52	39	91	145	108	253
1897 ..	—	2	19	—	—	4	—	—	—	—	17	11	1	25	29	54	67	77	144
1898 ..	—	4	5	—	—	1	—	1	—	11	3	32	—	11	46	57	26	107	133
1899 ..	—	—	12	1	—	6	—	—	2	1	5	48	—	21	54	75	48	122	170
Total ..	5	69	164	4	—	233	5	11	26	140	172	254	20	517	586	1,103	79	96	175

TABLE XI.—BRIGHT SUNSHINE.

YEAR.	Number of Hours.				Percentages of possible duration.			
	Jan. 1 to Mar. 31.	Jan. 1 to June 30.	Jan. 1 to Sept. 30.	Jan. 1 to Dec. 31.	Jan. 1 to Mar. 31.	Jan. 1 to June 30.	Jan. 1 to Sept. 30.	Jan. 1 to Dec. 31.
1890 ..	222	753	1,265	1,491	24	34	35	34
1891 ..	281	841	1,336	1,563	31	35	37	36
1892 ..	267	955	1,477	1,684	25	41	42	39
1893 ..	308	1,047	1,635	1,875	34	46	46	43
1894 ..	354	901	1,357	1,579	32	37	37	34
1895 ..	277	915	1,567	1,776	27	37	42	40
1896 ..	202	827	1,353	1,608	20	35	38	36
1897 ..	219	829	1,439	1,696	22	36	40	39
1898 ..	227	715	1,346	1,535	26	32	38	36
1899 ..	346	979	1,727	1,983	38	43	48	45
Mean ..	270	876	1,450	1,679	28	38	40	38



TABLE XII.—ACCUMULATED HEAT.

Year.	Day degrees above 42° F.				Day degrees below 42° F.			
	Jan. 1 to March 31.	Jan. 1 to June 30.	Jan. 1 to Sept. 30.	Jan. 1 to Dec. 31.	Jan. 1 to March 31.	Jan. 1 to June 30.	Jan. 1 to Sept. 30.	Jan. 1 to Dec. 31.
1890 ..	254	1,227	2,802	3,285	271	305	305	758
1891 ..	155	1,128	2,658	3,114	515	565	565	721
1892 ..	156	1,161	2,685	3,053	490	554	554	759
1893 ..	302	1,579	3,327	3,799	353	373	373	559
1894 ..	298	1,282	2,822	3,403	300	303	303	388
1895 ..	103	1,142	2,894	3,400	721	755	755	921
1896 ..	273	1,378	3,059	3,454	213	237	237	464
1897 ..	246	1,302	2,980	3,554	277	297	297	377
1898 ..	251	1,204	3,001	3,710	218	234	234	282
1899 ..	332	1,364	3,262	3,815	266	294	294	467
Mean ..	237.0	1,276.7	2,949.0	3,458.7	362.4	391.7	391.7	569.6

TABLE XIII.—CLIMATE OF WORTHING.

MONTH.	TEMPERATURE.							Amount of Cloud.	RAIN.	
	MEANS.					EXTREMES.			Amount at Ellesmere	No. of Wet Days.
	9 a.m.	Min.	Max.	Range.	Mean.	Min.	Max.			
January . . . . .	deg. 42·6	deg. 38·9	deg. 47·9	deg. 9·0	deg. 43·4	deg. 30·9	deg. 53·4	6·8	2·625	20
February . . . . .	41·8	37·5	48·3	10·8	42·9	26·4	56·8	5·3	3·149	13
March . . . . .	41·1	34·3	48·8	14·5	41·5	23·7	58·0	3·9	0·923	9
April . . . . .	48·1	42·3	52·0	9·7	47·1	31·8	57·0	6·3	2·288	22
May . . . . .	52·7	44·7	58·1	13·4	51·4	35·9	67·8	4·9	1·512	9
June . . . . .	62·1	51·9	67·5	15·6	59·7	44·0	77·0	3·8	0·918	6
July . . . . .	67·0	57·4	71·5	14·1	64·5	50·0	81·4	3·8	1·275	5
August . . . . .	69·0	58·4	74·3	15·9	66·4	52·0	84·4	4·3	0·406	7
September . . . . .	59·9	51·4	66·3	14·9	58·8	38·9	79·0	4·4	4·566	14
October . . . . .	51·6	45·4	59·3	13·9	52·3	37·6	63·7	4·5	1·910	11
November . . . . .	48·7	44·1	53·8	9·7	48·9	32·9	60·5	6·7	4·935	10
December . . . . .	38·0	33·5	43·4	9·9	38·4	23·6	54·0	6·5	1·720	18

Year 1899	51.9	45.0	57.6	12.6	51.3	23.6	84.4	5.1	26.23	144
" 1898	52.2	45.7	57.6	11.9	51.6	27.0	80.9	7.1	22.51	158
" 1897	51.4	44.7	56.9	12.2	50.8	21.9	80.7	7.3	26.07	172
" 1896	51.0	43.3	56.5	13.2	49.9	22.9	80.7	7.0	25.74	152
" 1895	50.4	43.0	55.5	12.5	49.3	16.2	77.9	6.4	26.09	161
" 1894	51.2	44.9	55.8	10.9	50.3	12.9	80.2	6.6	35.71	184
" 1893	52.3	44.0	57.7	13.7	50.9	18.2	84.7	5.5	25.12	142
" 1892	49.1	41.8	54.5	12.7	48.2	20.2	76.0	5.8	23.73	141
" 1891	49.4	42.4	54.8	12.2	48.4	16.5	77.0	5.9	29.86	172
" 1890	49.4	42.2	54.6	12.4	48.4	14.9	78.0	6.2	22.84	149
" 1889	49.5	42.7	54.8	12.1	48.8	21.9	81.5	6.4	23.92	159
" 1888	48.0	42.4	53.3	10.9	47.8	20.2	78.8	6.4	25.88	181
" 1887	48.4	41.6	54.1	12.5	47.9	17.4	82.0	5.7	21.28	137
" 1886	50.0	44.0	55.2	11.2	49.6	23.2	78.0	5.8	31.89	164
" 1885	50.0	43.7	55.1	11.4	49.4	25.2	81.7	5.7	28.09	156
" 1884	52.0	45.6	56.8	11.2	51.2	27.0	83.3	5.8	23.51	126
" 1883	50.7	43.9	55.9	12.0	49.9	23.3	75.7	5.7	26.05	174
" 1882	51.6	45.1	56.5	11.4	50.8	26.6	81.0	5.8	32.35	180
" 1881	50.3	43.4	55.0	11.6	49.2	13.5	82.0	5.6	29.60	142



## SALE OF FOOD AND DRUGS ACT, 1875 AND 1879.

Summary of the report of the County Analyst, Otto Hehner, Esq., appointed for the Council of West Sussex, upon the articles analysed by him under the above Acts during the year 1899.

### First Quarter, ending March 31st, 1899 :—

Article.	Result.
Milk, 7 samples . .	6 genuine, 1 adulterated with 15 per cent. water.
Olive Oil, 6 samples . .	All genuine.
Total number of samples analysed during the Quarter, 13. Adulterated, 1.	

### Second Quarter, ending June 30th, 1899 :—

Spirits, 21 samples . .	18 genuine, 3 watered with 12·8, 2·9, and 2·1 per cent. water.
Milk, 6 „ . .	All genuine.
Total number of samples analysed during the Quarter, 27. Adulterated, 3.	

### Third Quarter, ending September 30th, 1899 :—

Brandy, 14 samples . .	12 genuine, 2 watered with 4·6 and 5·3 per cent. water.
Golden Syrup, 14 samples	10 passed as genuine, 4 adulterated with 38, 43, 44, and 71 per cent. glucose syrup.
Milk, 9 samples . .	8 genuine, 1 adulterated with 24 per cent. water.
Total number of samples analysed during the Quarter, 37. Adulterated, 7.	

### Fourth Quarter, ending December 31st, 1899 :—

Golden Syrup, 28 samples	21 genuine, 7 adulterated with 30, 25, 30, 47, 55, 80, and 10 per cent. starch glucose.
Brandy, 7 samples .	All genuine.
Total number of samples analysed during the Quarter, 35. Adulterated, 7	

Year ending Dec. 31st.	No. of Samples Analysed.	Result of Analysis.		Adulterated.		Convictions.
		Genuine.	Adulterated.	By Added Water.	By Sub- stitutes.	
1891	121	101	20	18	2	—
1892	84	73	11	10	1	—
1893	61	51	10	6	4	—
1894	199	173	26	12	14	19
1895	83	70	13	7	6	12
1896	122	116	6	4	2	4
1897	156	146	10	9	1	7
1898	134	125	9	5	4	—
1899	112	94	18	7	11	—
Total	1,072	949	123	78	45	—
Per cent.	100	88·5	11·5	7·3	4·2	—

## COST OF WORKING THE ACTS.

Year ending Dec. 31st.	Fees for Analysis.			Carriage and Postage, &c.			Expenses incurred in obtaining samples, &c.			Printing, &c.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1894 ..	104	9	6	5	9	8	7	19	1	0	12	6	118	10	9
1895 ..	43	11	6	0	10	3	9	3	9	0	5	3	53	10	9
1896 ..	63	1	0	0	17	9	9	3	3	2	2	9	75	4	9
1897 ..	81	18	0	1	3	3	10	15	11	0	8	7	94	5	9
1898 ..	70	7	0	1	3	6	11	14	2	1	2	3	84	6	11
1899 ..	58	16	0	1	1	2	9	15	9	0	7	8	70	0	7
Total ..	422	3	0	10	5	7	58	11	11	4	19	0	495	19	6

The totals are not the same as in the published returns, because the financial year of the County Council ends on March 31st in each year.

The following return, covering a period of  $10\frac{1}{2}$  years, is of interest as it shows a very satisfactory condition as regards the quality of the food supplies in West Sussex.

Particulars of samples of food and drugs submitted to Public Analyst during the period from the quarter ended June 30th, 1889, to the quarter ended December 31st, 1899, both quarters inclusive.

Articles.	Number of Samples Analysed.	Result of Analysis.		Greatest Amount of Adulteration of any one Article.
		Genuine.	Adulterated.	
Spirits .. ..	148	134	14	22·4 per cent. of added water.
Whiskey .. ..	257	205	52	45·6 per cent. of added water.
Brandy .. ..	62	57	5	5·3 per cent. of added water.
Gin .. ..	3	3	—	
Rum .. ..	1	1	—	
Beer .. ..	9	9	—	
Ale .. ..	1	1	—	
Porter .. ..	1	1	—	
Stout .. ..	1	1	—	
Coffee .. ..	33	30	3	75 per cent. of Chicory, but was labelled "Mixed with Chicory."
Butter .. ..	169	166	3	One entirely of margarine ; one with 97 per cent. of margarine.
Bread .. ..	15	15	—	
Milk .. ..	246	226	20	One skimmed and watered ; one with 24 per cent. of added water.
Vinegar (Malt)	33	28	5	One with 50 per cent. of added water ; four were not malt vinegar.
Pepper .. ..	9	9	—	
Mustard .. ..	2	2	—	
Lard .. ..	28	18	10	15 per cent. of beef stearine.
Cheese .. ..	21	20	1	One made from skimmed milk.
Olive Oil .. ..	85	72	13	Five entirely of cotton seed oil.
Tea .. ..	7	7	—	
Ipecacuanha Wine	3	3	—	
Ginger (Ground	7	7	—	
Castor Oil .. ..	7	7	—	
Cod Liver Oil .. ..	1	1	—	
Yeast .. ..	3	1	2	One with 34 per cent. of starch.
Golden Syrup .. ..	42	31	11	80 per cent. starch glucose.
Flour .. ..	7	7	—	
Bread .. ..	7	7	—	
Oatmeal .. ..	2	2	—	
Total	1210	1071	139	
Per cent.	100	88·5	11·5	



## WORTHING CORPORATION OBSERVATORY.

The observations, which were commenced on July 1st, 1898, have been continued regularly during the past year.

The instruments remain in precisely the same position as in 1898; they were obtained from Messrs. Negretti and Zambra, and each instrument has been verified and corrected at the Kew Observatory.

Two additions have been made during the year; a new earth thermometer has been sunk to a depth of 6 feet, and daily observations have been taken from it at 9 a.m., since March 1st; a Jordan photographic recorder has been put up by the side of the Campbell Strokes' recorder, and daily registers have been taken since January 1st, 1899.

### BRIGHT SUNSHINE

The Campbell Strokes' sunshine recorder is placed on a platform raised ten feet above the roof of the Observatory, so that it is in a favourable position for recording observations. The recorder consists of a 4in. globe of glass, so fitted that when the sun shines brightly its rays burn a line on a card prepared for the purpose, and thus the daily amount can be easily recorded.

The year 1899 was remarkable for a large excess of bright sunshine; in nearly each month the amount was above the average.

Table XI. p. xx. gives the number of hours in the South of England for the ten years, 1890-99, and it will there be seen that the past year is the brightest of the series. In 1893 there was a large amount of sunshine in the first half of the year, but the second half was not so bright. During the past twenty-two years in which similar observations have been made, there has been no year giving such high results as 1899.

The dullest year on record was 1879, when only 983 hours were recorded in the South of England against 1,983 in 1899.

The cards are measured by a glass scale, which was obtained at the Meteorological office, and this is a more accurate method than any other. The cards have also been sent up to the Meteorological office for the purpose of having the measurements checked, and the result was most satisfactory, as the records were in very close accordance.

I am, indeed, much indebted to the Secretary for much help and advice given to me on several occasions.

The following memorandum issued by the office has proved very useful :—

#### TABULATION OF SUNSHINE.

“The following memorandum has been prepared in reply to various questions which have from time to time been addressed to this office, as to the way in which the traces on the cards obtained from the Stokes' sunshine recorder ought to be measured.

The points on which observers have generally asked for information have been two :—

1. How to deal with cases in which the scorch is *faint* such as is usually the case near sunrise and sunset, or when the sun is shining through a slight haze.
2. How much of the trace to measure when the sun has been shining *brightly* but *intermittently*, or when a strong burn has been abruptly stopped.

In the first of these cases it is recommended that the whole of the trace, *as far as it can fairly be seen*, should be measured, the measurement being carried right to its extreme ends.

In the second case it must be remembered that when the sun is shining with moderate power there is always a *slight lateral extension of the trace*, due to the smouldering of the card, and in consequence the trace will probably be as long for one minute of sunshine as for two or three. For this smouldering a slight allowance should be made, and the measurement should NOT in such cases *be carried to the extreme limits* of each of the burns. It is difficult to lay down a hard-and-fast rule which shall meet every case, because special circumstances may easily occur in which such a rule ought to be modified, and therefore something must necessarily be left to the judgment of the observer. He cannot however go far wrong if he will always be careful not to *strain* the record unduly, remembering that what is required is not so much a *large* total as a *correct* one.

In using the glass scale the parts of hours should be measured to *tenths*, and not to minutes ; and the scale ought to be so placed upon the card that one of its curved lines may correspond to the outer edge of the card.”

I give here a table showing the amount of bright sunshine registered here by each instrument during the past year, with the percentage of possible duration and the number of sunless days.

		Campbell Stokes.		Jordan.	Sunless
		Hours.	Per cent.	Hours.	days.
January	.. ..	78·4	30·2	72·8	10
February	.. ..	125·1	45·1	126·1	6
March	.. ..	199·5	54·4	201·9	1
First Quarter	..	403·0	44·6	400·8	17
April	.. ..	164·8	39·7	154·9	3
May	.. ..	254·3	52·7	227·3	0
June	.. ..	291·9	59·0	280·6	0
Second Quarter	..	711·0	51·1	662·8	3
July	.. ..	298·7	60·2	299·8	0
August	.. ..	298·4	66·5	287·3	0
September	.. ..	200·3	53·0	195·9	0
Third Quarter	..	797·4	60·3	783·0	0
October	.. ..	173·1	52·7	163·8	4
November	.. ..	64·2	24·3	57·8	12
December	.. ..	58·0	23·9	45·6	12
Fourth Quarter		295·3	35·3	267·2	28
Total for the year		2206·7	50·0	2113·8	48

More bright sunshine is registered in the South of England than in any other part of the kingdom, and Sussex seems the sunniest county in the country.

At each of the five stations in Sussex using the Campbell Stokes' recorder the following amounts were registered last year:—

Station.	Hours.
Worthing .. .. .	2207
Bexhill on-Sea .. .	2186
Hastings .. .. .	2130
Eastbourne .. .. .	2119
Brighton .. .. .	2110

Most observers have found that the Jordan instrument gives higher results than the Campbell Stokes, but I have not found this to be the case. I much prefer the Campbell Stokes recorder, as it appears to be more accurate and to leave less to the imagination.

#### RAINFALL.

The rain gauge is near the centre of the lawn ; it is 8in. in diameter, and the top is 1 foot above the ground level, and 33·75 feet above Ordnance Datum.

The 5in. gauge, which has been in use for many years, is on my lawn, about one-third of a mile west of the Observatory ; its top is 1 foot. above the the ground level and 26·16 feet above O.D.



The total amount of rainfall for 1899 was again below the mean for 1852-96, as it was in the previous four years. The drought, however, was not so marked as in the dry period from May 1st, 1897, to October, 1898.

On September 29th, 1899, there was a very heavy fall of rain when 2·645in. of rain were measured in my 5in. gauge in the twenty-four hours; of this amount, 2·485in. fell from 1 p.m. to 7.45. p.m., and 0·160in. fell between 7.45. p.m., and 9 p.m., when the rain ceased; the down-pour was greatest between 4 p.m. and 6 p.m. The wind blew from E. to S.E. and the barometer fell rapidly all day from 29·773 at 9 a.m. to 29·342 at 9 p.m. There was high water at 7.37 p.m., so that the sewers were tide-locked and many basements were flooded.

The rainfall varied somewhat in different parts of the town, and in places a few miles distant not more than 1in. of rain was recorded.

The highest amount previously recorded here, so far as I can find, was 2·110in. on October 15th, 1882. Most storms here arise with a S.W. wind, but in this case the wind was S.E.

I give here the amount of rainfall measured in 1899 :—

1899.		Sim. gauge. in.	5in. gauge. in.	No. of wet days.	Mean fall 1852-96. in.
January ..	..	2·600	2·625	18	2·55
February ..	..	3·136	3·149	13	1·80
March ..	..	0·965	0·923	10	1·70
April ..	..	2·314	2·288	20	1·56
May ..	..	1·530	1·512	9	1·77
June ..	..	0·930	0·918	6	1·95
July ..	..	1·340	1·275	5	2·08
August ..	..	0·408	0·406	7	2·34
September ..	..	4·156	4·566	14	2·72
October ..	..	1·920	1·910	11	3·89
November ..	..	4·835	4·935	10	3·04
December ..	..	1·763	1·720	18	2·55
Total year ..	..	25·897	26·227	141	27·95

Less rain falls along the coast south of the Downs than in the Weald or in places west of the river Adur.

This table gives the rainfall for ten years in four places in different parts of West Sussex :—

Year.	Worthing. Author.	Arundel. A. Holmes, Esq.	Westbourne. Rev. E. L. Birkett.	Horsham. H. Padwick, Esq., M.A.
1890 ..	22·84	25·72	24·13	25·87
1891 ..	29·86	32·89	35·94	34·84
1892 ..	23·73	27·62	26·95	27·53
1893 ..	25·12	26·21	25·75	25·06
1894 ..	35·71	37·73	39·04	42·18
1895 ..	26·09	30·27	29·34	31·36
1896 ..	25·74	28·35	27·74	33·01
1897 ..	26·07	32·45	31·13	32·95
1898 ..	22·51	26·50	26·22	27·94
1899 ..	26·23	25·11	26·80	28·67
Mean ..	26·39	29·28	29·50	30·94

### BAROMETER.

The Fortin standard barometer is placed so that the level of the top of the mercury is 30·9 feet above Ordnance Datum. To the brass stem of the barometer a delicate thermometer is attached, so that the temperature is known at the time of each observation. Corrections have to be made, so as to reduce the readings to sea level, and to a temperature of 32° F.

The corrected readings for the past year, taken each day at 9 a.m., are here given :—

	Max. in.	Min. in.	Mean.
January .. ..	30·655	28·961	29·890
February .. ..	30·725	29·376	29·928
March .. ..	30·694	29·129	30·135
April .. ..	30·309	29·003	29·878
May .. ..	30·486	29·456	30·056
June .. ..	30·442	29·425	30·105
July .. ..	30·436	29·596	30·109
August .. ..	30·428	29·823	30·109
September .. ..	30·258	29·363	29·919
October .. ..	30·434	29·343	30·095
November .. ..	30·707	29·508	30·248
December .. ..	30·557	28·733	29·938

The highest reading was 30·725in. on February 28th, during a long anticyclonic period ; the lowest reading was on December 29th ; on this day there was a great gale from the south-west, not, however, accompanied by much rain ; at 9 a.m. the barometer stood at 28·733in., and then the mercury fell all day to 4.30 p.m., when it stood at 28·420in., rising gradually in the evening.

### AIR TEMPERATURE

There are four thermometers placed in a Stevenson screen near the centre of the lawn at the Observatory ; they are thus always in the shade, for the screen is so made as to exclude rain and direct sunshine, while it allows a free current of air.

The observations are taken at 9 a.m. daily. The dry thermometer shows the temperature at any given time, and the wet bulb varies according to the amount of moisture in the air, so that it records a lower temperature than the dry bulb.

The maximum and minimum thermometers register respectively the highest and lowest temperatures in the previous twenty-four hours.

Table XIII. p xxii. gives the values recorded by these instruments in each month of the past year.

#### TEMPERATURE OF THE SOIL AT 9 A.M.

There are four thermometers of special construction, which are enclosed in iron tubes and so suspended that each bulb is respectively 1 foot, 2 feet, 4 feet, and 6 feet below the surface of the grounds.

The 6ft. thermometer was placed in position on March 1st, 1899, and daily observations at 9 a.m. have been taken since that date.

The soil in which the four instruments are sunk is a sandy loam, well drained, and not capable of being water-logged; the sub-soil water runs towards the sea at a depth from 15 to 20ft. below.

The accompanying chart shows the mean weekly temperature registered by each instrument. The 1ft. thermometer is most exposed to external influences, and it feels, more acutely than the rest, the cold of winter and the heat of summer.

The 6ft. thermometer is less disturbed by these conditions, and it pursues a very even course, subject to no marked daily variations. In like manner the 4ft. instrument has a more even curve than the 2ft. The chart also shows that the deeper the instrument is placed, the slower it is in feeling the effects of temperature. Thus the highest point in the summer is reached first by the 1ft., and last by the 6ft. thermometer, and likewise in the winter the 1ft. instrument is the first to reach the minimum. Thus there are two periods in the year when there is, as it were, a jumble in the readings, and at these times the reading of all the instruments are nearly the same. These periods occurred last year in the first fortnight of April and in the middle fortnight of September, so that the position of the readings is reversed in summer and winter.

The daily observations show these points more clearly, as the mean weekly records cannot show the extremes.

March appears to be the month in which the sub-soil is coolest, and August the month in which it is warmest.

The variation in the mean readings is highest for the 1ft., and least for the 6ft. thermometer.



The mean for each instrument for the whole year gives no idea of the variations that have actually taken place.

The extreme daily readings during the past year are shown by the vertical lines to the left of the chart :—

		1ft.	2ft.	4ft.	6ft.
Maximum	..	68·8	66·3	62·7	60·8
Minimum	..	37·1	40·5	44·5	46·4
Variation	..	31·7	25·8	18·2	14·4

The following table gives the mean reading for each month and the monthly variation between the maximum and minimum readings.

		Mean for each Month.				Variation.			
1899.		1ft.	2ft.	4ft	6ft.	1ft.	2ft.	4ft.	6ft.
January	..	43·6	45·2	47·8	—	9·0	4·6	1·2	—
February	..	42·6	43·8	45·8	—	8·9	5·5	1·7	—
March	..	41·9	43·3	44·6	—	9·2	4·5	0·7	—
April	..	48·5	48·2	47·4	47·6	5·3	4·6	3·6	2·2
May	..	54·2	53·3	51·1	50·2	6·6	5·3	3·9	3·1
June	..	61·4	59·6	55·8	53·8	5·5	5·7	4·6	3·6
July	..	65·0	63·1	59·4	57·1	7·7	4·9	3·5	3·3
August	..	66·9	65·5	62·3	60·0	4·4	1·5	1·4	1·9
September	..	60·6	61·8	61·3	60·5	12·7	8·0	3·5	1·3
October	..	52·4	54·0	56·0	57·4	6·7	4·4	4·6	3·4
November	..	50·0	51·4	53·3	54·8	9·0	5·8	3·4	2·3
December	..	41·8	44·3	48·4	51·2	10·1	7·0	5·5	4·3
Mean	..	52·4	51·1	51·1	—	7·9	5·1	3·1	—

The persistent high temperature of the sub-soil was accompanied by an unusual amount of diarrhoea throughout the country, and the infant mortality was much above the average.

There were 38 deaths of infants and young children from diarrhoea in the third quarter of the year in the four urban districts of Worthing, Horsham, Littlehampton, and Portslade-by-Sea, and to this number I have added the deaths of 13 infants from gastro-enteritis, &c., which includes some forms of disease which in former years would have been classed as diarrhoea.

These four populous areas have an estimated population of 41,600. In July there were no deaths, but in August there were a few, and the number increased considerably in the first half of September, after which period the mortality quickly declined. The following table gives the number of deaths week by week, and it should be examined with the aid of the chart which shows the various sub-soil temperature for the corresponding periods.

The 1ft. thermometer reached its highest point on August 6th, and then it gradually fell ; the 2ft. thermometer reached its highest point on the same day, and it remained high for a fortnight, when it slowly

fell, but less rapidly than the 1ft. In the first half of September the readings of these two thermometers were distinctly lower than in the first half of August.

The 4ft. thermometer was high on August 19th, highest on August 30th and 31st, and it remained very high until September 13th, when it began to fall steadily.

The 6ft. thermometer was highest from August 28th to September 18th, when it also began to fall, but less rapidly than the other instruments.

Thus in the last week in September the readings were quite altered as regards position; the 1ft. thermometer was lowest, and the 6ft. thermometer was highest. The deeper the instrument was placed in the earth, the slower were they in reaching their highest readings, and the slower were they in falling when the cool days and nights of September affected the bulbs nearer the surface. The 4ft. thermometer reached 56 deg. F. on June 14th, and its reading were never as low again until October 15th. It rose steadily all through July and August until it reached its maximum of 62·7° on the last two days of August; there were after that date many cases of diarrhœa, but not in July when the earth temperatures were much higher than usual.

The 6ft. thermometer did not reach 56 deg. F. until July 4th, and its readings were never as low again until October 25th. It also rose steadily all through July and August, and it reached its maximum of 60·8° on August 28th, where it remained until September 17th; it was during this period that infantile diarrhœa was most prevalent.

			DIARRHŒA.			ENTERITIS.	
Week ending.			M.	F.		M.	F.
August	5th	..	1	1	..	—	—
„	12th	..	1	1	..	1	2
„	19th	..	2	2	..	2	2
„	26th	..	1	—	..	—	1
September	2nd	..	5	5	..	—	3
„	9th	..	4	6	..	—	—
„	16th	..	2	4	..	1	1
„	23rd	..	1	1	..	—	—
„	30th	..	—	1	..	—	—
Total ..			17	21	..	4	9
			38		13		
			51				

The infant mortality is here shown as regards age and sex :—

		Under 1 year.		1 to 2.		2 to 3.			Total.
		M.	F.	M.	F.	M.	F.		
Diarrhœa ..	..	13	16	2	3	2	2	—	38
Enteritis	..	3	8	1	1	—	—	—	13
		—	—	—	—	—	—		—
Total ..	..	16	24	3	4	2	2	—	51
		40		7		4			

SOLAR RADIATION.

Two thermometers, each enclosed in a glass shield in vacuo, are placed horizontally on a stand raised 4ft. from the ground with the bulbs directed to the south-east

One instrument has a blackened bulb whereby the intensity of the solar heat is measured; the other instrument has a bright uncoated bulb; the difference between the two readings measures the amount of solar heat when it has arrived within our atmosphere.

These observations only give the highest point reached each day, but they do not tell how long the period lasts. Intensity but not duration is shown.

The means for each instrument show a steady rise from January to August, and then a more rapid fall to the end of the year. The variations in the mean readings are much greater in the summer, than in the winter months.

189		Black Bulb.			Mean Variation.	Bright Bulb.		
		Max.	Min.	Mean.		Max.	Min.	Mean.
January	..	93·8	50·8	71·5	16·8	66·0	46·0	54·7
February	..	101·9	47·8	82·7	24·1	71·5	40·9	58·6
March ..	..	115·0	66·8	96 7	32·9	74·0	50·0	63·8
April ..	..	119·3	64·2	105·4	36·4	77·2	49·1	69·0
May ..	..	128·0	105·0	116·9	39·5	86·9	71·0	77·4
June .	..	135 0	118·5	123·4	37·9	94·9	79·5	85·5
July ..	..	133·5	112·0	126·4	36·8	99·0	82·2	89·6
August ..	..	135·5	116·0	126·6	35·1	101·0	82·7	91·5
September	..	136 4	80 9	115·8	33·7	97·1	61·0	82·1
October ..	..	115 0	62·9	97·8	27·2	78·0	54·5	70·6
November	..	102 9	51·8	78·6	18·2	73·0	47·0	60·4
December	..	83·2	38·9	61·3	13·5	61·2	35·4	47·8



## SUB-SOIL WATER.

The Observatory Well is situated in the basement of the house ; it is dug in a sandy loam down to a running sand overlying chalk marl. It is  $21\frac{1}{2}$ ft. in depth ; the bottom of the well is  $5\frac{1}{2}$ ft. above O.D. and in the driest weather there have always been three or four feet of water in it. Fairlawn Well is situated in a garden 107 yards to the north-west ; it is dug in similar soil to a depth of about 30ft. Each well is covered over, and no water from the surface can enter accidentally ; neither well is used except for the purpose of these observations.

The depth of the water is measured by a jointed, wooden rod, so made as not to allow of expansion or contraction ; the last joint has a shoe of lead so as to facilitate its descent, and it is graduated in feet and inches. The whole is painted a dull black so that the water mark is clearly discernible.

Daily measurements are now taken at 9 a.m. of the distance of the level of the water from a known and fixed point at the surface of each well, the height of each such point above Ordnance Datum being first accurately determined.

This plan is obviously better than that of measuring the depth of water in the well on any given day, as the bottom of the well may be a variable quantity.

The fixed point at the Observatory is 26ft. 11in. above Ordnance Datum ; the fixed point at Fairlawn is 33ft 2in. above Ordnance Datum. The Observatory Well is sunk in the basement which is about seven feet lower than the surface of the ground around, hence the difference in the heights.

Although the wells are so near each other, and the subsoil appears to be the same, yet the level of the water at Fairlawn is persistently from one to four inches higher than at the Observatory Well, but the rise and fall in each follows a precisely similar course. The deeper the water in the well, the greater is the difference.

On January 1st, 1899, the level of the water in the Observatory Well was 9ft. 5in. above O.D. Then there came a wet period, and in the first six weeks of the year, 5·736in. of rain fell. The water in the well rapidly rose, so that on February 17th the level stood at 12ft.  $4\frac{1}{2}$ in., or a rise of nearly 3ft. This was the highest point reached during the year, but although March was a dry month, the level remained high until the middle of April when it began to decline. A heavy fall of rain on April 24th caused a slight rise, and then the descent was uniform and steady until the end of July. May was a fairly dry month, June was very dry, and in July hardly any rain fell until the 22nd and 23rd, when 1·225in. were registered ; this fall caused a slight rise in the water level, but very soon the decline was resumed, and the level stood at 8ft.  $6\frac{3}{4}$ in. on September 29th. August was a very dry month, and September was also a dry month until the 26th, but during the last five days of September the rainfall was very heavy and 3·912in. were registered in my gauge. This caused a sudden rise

of nearly ten inches on September 30th, and the weekly mean was affected to the extent of six inches. A dry October caused another decline, so that on November 1st, the level reached its lowest point, and it stood at 8ft. 6in. above O.D. The first ten days of November were very wet, and 4·835in. were then collected, but no rain fell during the rest of the month. The effect on the sub-soil water was very marked and the level stood at 10ft. 9 $\frac{1}{4}$ in. on November 11th. At this time the ground was well saturated with water, and floods were common all over the low-lying lands in the county. Another decline then set in, and proceeded until December 1st, when the level had gone down to 9ft. 3in. A fairly wet December kept the level nearly the same throughout the month, so that on the last day of the year there was almost exactly the same amount of water in the well that there was at the beginning of the year.

Fairlawn Well showed similar variations.

The accompanying chart shows clearly the mean weekly height above O.D. of the water in the two wells; it cannot, however, give the daily extremes which have been above indicated.

The following table shows the level of the water in each well above Ordnance Datum on the first day of each month.

#### LEVEL OF WATER ABOVE O.D.

1899.	Observatory Well.			Difference.	Fairlawn Well.	
	ft.	in.			ft.	in.
January 1 .. ..	9	5		1 $\frac{1}{4}$	9	6 $\frac{1}{4}$
February 1 .. ..	10	7 $\frac{1}{4}$		3	10	10 $\frac{1}{4}$
March 1 .. ..	12	0 $\frac{3}{4}$		4	12	4 $\frac{3}{4}$
April 1 .. ..	12	1		4 $\frac{1}{4}$	12	5 $\frac{1}{4}$
May 1 .. ..	11	8 $\frac{1}{4}$		4	12	0 $\frac{1}{4}$
June 1 .. ..	10	11 $\frac{3}{4}$		3 $\frac{3}{4}$	11	3 $\frac{1}{2}$
July 1 .. ..	10	4 $\frac{3}{4}$		3 $\frac{1}{2}$	10	8 $\frac{1}{4}$
August 1 .. ..	9	6 $\frac{1}{4}$		2 $\frac{3}{4}$	9	9
September 1 .. ..	8	11		1 $\frac{3}{4}$	9	0 $\frac{3}{4}$
October 1 .. ..	9	5 $\frac{1}{2}$		1	9	6 $\frac{1}{2}$
November 1 .. ..	8	6		2	8	8
December 1 .. ..	9	3		2 $\frac{1}{2}$	9	5 $\frac{1}{2}$
December 31 .. ..	9	5 $\frac{1}{4}$		2	9	7 $\frac{1}{4}$

#### SWANDEAN.

Swandean was a large private house, situated on the south side of the Downs in the parish of Durrington, and distant about three miles from the centre of Worthing.

It stands on ground elevated about 140ft. above sea level, and it is surrounded by 7 $\frac{1}{2}$  acres of land.



It was purchased on behalf of the Worthing Corporation at the close of 1895, and on December 7th, 1895, the first cases were admitted.

There is ample room to build ward pavilions or isolation wards, but at present no material alteration has been made in the building. It has, however, proved very useful in isolating infectious cases from the Borough, although two different diseases cannot be treated satisfactorily at the same time.

A caretaker and his wife look after the household arrangements and the garden, and the nursing is under the superintendence of Miss Beck to whom I am much indebted for her skill and care in the treatment of the patients.

Since the opening there have been admitted 294 patients :—

		1895. Dec. 7 to Dec. 31.	1896.	1897	1898.	1899	Total.
SMALL-POX—							
Cases	..	—	21	—	—	—	21
Deaths	..	—	—	—	—	—	—
SCARLATINA—							
Cases	..	—	—	22	124	24	170
Deaths	..	—	—	—	—	—	—
DIPHTHERIA—							
Cases	..	21	32	21	6	16	96
Deaths	..	4	12	5	—	6	27
ENTERIC FEVER—							
Cases	..	—	—	—	1	6	7
Deaths	..	—	—	—	—	—	—
TOTAL—							
Cases	..	21	53	43	131	46	294
Deaths	..	4	12	5	—	6	27

I am indebted to Mr. L. H. Cheffins, the Assistant Town Clerk, for the following abstract of receipts and expenditure during the past three years, 1897-99 :—

			RECEIPTS.			EXPENDITURE.		
			£	s.	d.	£	s.	d.
1897	..	..	24	10	1	..	481	12 9
1898	..	..	474	3	11	..	812	15 4
1899	..	..	217	1	4	..	539	2 2
			<hr/>			<hr/>		
			£715	15	4	£1,833 10 3		
Excess	..		1,117	14	11			
			<hr/>			<hr/>		
			£1,833	10	3	£1,833 10 3		



The excess, divided by three, shows an annual expenditure to be defrayed out of the rates of £372 11s. 8d.

Since 1d. in the pound brings in about £432, the yearly cost of Swandean is equal to four-fifths of a penny rate. The actual cost for the maintenance only of a patient varies from 6s. 6d. to 7s. per week.

By an arrangement with the East Preston Rural District Council arrived at last September an agreement was executed on September 13th, between that Council and the Worthing Corporation for the admission of persons suffering from infectious disease in the adjacent parishes of Broadwater, West Tarring, Durrington, Goring, Ferring, and Clapham, on certain conditions.

It has also been provided that pauper cases may be admitted to Swandean when it is deemed necessary, and then the charges for medical attendance, nursing, and maintenance will be defrayed by the Guardians.

During the year 1899, six cases from the rural district were admitted to Swandean from Broadwater; four cases of enteric fever from one house were paid for by the Guardians, one of diphtheria from private sources, and one of scarlatina by the Rural District Council.

Twenty-three cases of scarlatina, fifteen of diphtheria, and two of enteric fever were admitted from the Borough of Worthing.

It is most desirable that a ward pavilion should be erected for the reception of diphtheria patients, as it is important to keep them apart from the scarlatina cases; the matter is under the consideration of the Town Council.

(A)—Table of DEATHS during the Year 1899, in the COMBINED

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								1	2
	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		Small Pox.	Scarlatina.
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)		
Steyning West R.S.D. ...	144	32	8	5	8	39	52	Under 5 ..... 5 upwards.		1
Steyning East R.S.D. ...	42	3	14	9	2	7	7	Under 5 ..... 5 upwards.		1
Horsham R.S.D. ..	267	39	24	8	11	76	109	Under 5 ..... 5 upwards.		
Petworth R.S.D. ...	105	24	2	3	2	33	41	Under 5 ..... 5 upwards.		
Thakeham R.S.D. ...	107	21	12	2	6	36	30	Under 5 ..... 5 upwards.		
East Preston R.S.D. ..	185	36	11	8	8	51	71	Under 5 ..... 5 upwards.		1
Midhurst R.S.D. ...	188	28	14	8	9	52	77	Under 5 ..... 5 upwards.		1
Westbourne R.S.D. ...	111	17	9	3	8	30	44	Under 5 ..... 5 upwards.		2
Worthing U.S.D. ...	321	67	19	13	14	100	108	Under 5 ..... 5 upwards.		
Littlehampton U.S.D. ...	92	17	12	5	4	31	23	Under 5 ..... 5 upwards.		
Arundel U.S.D. ..	45	8	3	—	2	12	20	Under 5 ..... 5 upwards.		
Horsham U.S.D. ...	151	34	8	7	9	44	49	Under 5 ..... 5 upwards.		
Portslade-by-Sea U.S.D. ...	90	24	10	5	7	19	25	Under 5 ..... 5 upwards.		
TOTALS.....	1848	350	146	76	90	530	656	Under 5 ..... 5 upwards.		1 5

The subjoined numbers have also to be taken ii

Deaths occurring outside the District among persons belonging thereto.....	9	—	—	—	—	2	7	Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...	21	2	11	6	1	1	—	Under 5 ..... 5 upwards.		1







## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the COMBINE

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS COMING TO THE KNOWLEDGE OF THE OFFICER OF HEALTH.						
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5		
									Small Pox.	Scarlatina.	Diphtheria.
(a)	(b)	(c)	(d)	(e)							
Steypning West R.S.D. ...	10,810	11,750	274	Under 5 5 upwards.			8 31				1
Steypning East R.S.D. ...	1,992	2,350	35	Under 5 5 upwards.			1 1				
Horsham R.S.D. ...	16,798	19,470	409	Under 5 5 upwards.		4 57	7 47				
Petworth R.S.D. ...	9,431	9,340	194	Under 5 5 upwards.		1 4	1 7				
Thakeham R.S.D. ...	8,049	8,000	185	Under 5 5 upwards.		2 14	2 13	1			
East Preston R.S.D. ...	8,692	10,000	290	Under 5 5 upwards.		5 24	2 8				1
Midhurst R.S.D. ...	14,236	14,450	326	Under 5 5 upwards.		10 36	1 14				1
Westbourne, R.S.D. ...	7,084	6,930	180	Under 5 5 upwards.		23 75	6 33				1
Worthing U.S.D. ...	16,606	21,600	368	Under 5 5 upwards.		6 24	11 19				1
Littlehampton U.S.D. ...	4,452	6,000	116	Under 5 5 upwards.			2 5				
Arundel U.S.D. ...	2,644	2,640	68	Under 5 5 upwards.			1 3				
Horsham U.S.D. ...	8,087	9,000	241	Under 5 5 upwards.		2 7	5 22				
Portslade-by-Sea U.S.D. ...	4,070	5,000	193	Under 5 5 upwards.		8 9					
TOTALS .....	112951	126530	2,879	Under 5 5 upwards.		61 285	47 211	1			9

INFECTION SICKNESS, coming to the knowledge of the Medical  
OFFICER; classified according to DISEASES, AGES, and LOCALITIES.

CASES IN EACH LOCALITY, OF THE MEDICAL OFFICER OF HEALTH.							NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.												
7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
FEVERS.							FEVERS.												
Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.			Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.		
		1		4															
								3				1							
				5															
		1		2								1							
				4								1							
												1							
				13				1	1			3							
				7															
				11															
								7	3										
				15				17	11			2							
				1															
				21															
				2															
		1						1				2							
				1				7	3			1							
		3		84				22	12			10							

# STEYNING WEST RURAL DISTRICT.

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pp. 1 et seq.



## STEYNING WEST RURAL DISTRICT.

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The Steyning Rural Sanitary District was divided into two portions on the passing of the Local Government Act, 1894. Steyning West includes fifteen parishes which are enumerated in the next table, while Steyning East includes the remaining seven parishes. Part of Edburton is now under its own name in the western division portion, while the rest, known as Fulking, is now in the eastern division. The change came into effect from January 1st, 1895, and the following figures have reference only to this new district in the present and in previous years :—

Population in 1861 .. .. .	8,735
„ „ 1871 .. .. .	10,377
„ „ 1881 .. .. .	10,904
„ „ 1891 .. .. .	10,810
Male Population in 1891 .. .. .	5,526
Female „ „ „ .. .. .	5,284
No. of Inhabited Houses in 1891 .. .. .	2,193
„ Uninhabited Houses in 1891 .. .. .	204
„ Persons to each House in 1891 .. .. .	4.93

The population has remained nearly stationary in most of the parishes for many years, but in Southwick and Kingston several fresh houses have been, and are being, erected.

Southwick became an Urban District on Michaelmas-Day, 1899, but I have given the vital statistics in this part of my report as usual for the sake of uniformity in calculating the rates of births and deaths in this area. In future reports it will appear as a separate district. It is rapidly increasing in size, and it has combined with Portslade in carrying out a sufficient scheme for sewerage and drainage.

The following table gives the usual information as to the incidence of various diseases in each parish in this district.

Table showing the Deaths from various causes in each Parish in the twenty-four years, 1876-99.

PARISH.	Notifiable.							Non-notifiable.				Phthisis.	Lung Disease.	Heart Disease.	All Diseases.		
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.			Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.					Rheumatic Fever.	
					Typhus.	Enteric.	Continued.										Puerperal.
Southwick	—	7	13	1	4	12	2	1	7	8	24	37	1	80	128	69	908
Kingston	—	—	2	—	1	2	—	—	2	1	4	1	—	7	9	7	102
Lancing	—	—	5	—	—	8	—	—	2	9	8	10	—	27	42	32	368
Old Shoreham.	—	—	1	—	—	7	1	—	1	—	—	2	—	3	10	13	88
Sompting	—	4	5	—	—	2	—	—	1	—	6	8	—	27	19	17	225
Coombes	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1	3	17
Botolphs	—	—	—	—	—	—	—	—	—	1	1	—	—	1	4	1	23
Bramber	—	—	—	—	—	—	—	—	—	—	1	1	—	10	3	7	64
Steyning	—	7	6	1	—	6	—	—	5	2	21	15	1	61	104	46	629
Upper Beeding	—	1	1	—	—	5	1	—	—	—	1	3	1	25	36	13	214
Edburton	—	—	1	—	—	1	—	1	—	—	1	1	—	4	4	6	44
Woodmancote.	—	1	—	—	—	—	—	1	—	1	1	—	—	12	12	9	86
Henfield	—	2	24	—	1	7	1	2	1	1	9	8	1	59	94	74	686
Ashurst	—	—	2	—	—	2	—	—	1	1	3	2	—	11	24	8	119
Shermanbury	—	2	—	1	1	2	—	1	—	2	5	1	1	10	18	17	129
Total	—	24	60	3	7	54	5	6	20	26	85	89	5	340	508	322	3,702

All deaths occurring in Shoreham Workhouse, which is situated outside this district, have been distributed each year to each parish whence the inmate came.

### BIRTHS AND BIRTH-RATE

During the year 1899, the births of 274 children were registered; of these 147 were male, and 127 were female.

Estimating the population in the middle of the year at 11,750, the birth-rate was equal to 23·3 per 1,000 persons living.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

The following table shows the births and birth-rate in each locality during two periods:—

	Birth-rate.		Births.		Birth-rate.	
	1877-84.	1893-97.	1898.	1899.	1898.	1899.
Southwick Parish ..	33·5	32·0	87	110	29·5	36·1
Rest of Rural District	27·1	25·3	72	73	25·0	25·2
Steyning Parish ..	31·1	23·7	31	26	17·7	14·9
Henfield Parish ..	28·9	17·6	30	28	14·1	13·0
Rest of Rural District	32·0	22·5	39	37	20·5	19·5
Mean ..	30·5	25·7	259	274	22·3	23·3

### GENERAL MORTALITY.

There were 144 deaths registered in this district in the year 1899, but to this number must be added the deaths of 6 persons in New Shoreham Workhouse, which is outside the district, leaving the corrected figures at 150.

The six Workhouse deaths have been distributed among the several parishes whence each inmate came, viz.:—Southwick 2, Sompting 3, and Steyning 1.

Estimating the population in the middle of the year at 11,750, the death-rate was equal to 12·8 per 1,000 persons living.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

	Deaths.				Death-rate.			
	1896.	1897.	1898.	1899.	1896.	1897.	1898.	1899.
Southwick Parish ..	36	30	43	41	13·1	10·3	14·6	13·4
Rest of Rural District	18	32	33	35	6·4	11·2	11·5	12·1
Steyning Parish ..	18	24	16	27	10·3	13·8	9·1	15·4
Henfield Parish ..	27	27	31	25	13·0	12·9	14·6	11·6
Rest of Rural District	17	28	20	22	9·0	14·7	10·5	11·6
Total ..	116	141	143	120	10·3	12·3	12·3	12·8



In each parish the deaths were thus distributed :—

Southwick .. ..	41	..	Bramber .. ..	3
Kingston .. ..	3	..	Steyning .. ..	27
Lancing .. ..	15	..	Upper Beeding ..	7
Old Shoreham ..	2	..	Edburton .. ..	1
Sompting .. ..	14	..	Woodmancote ..	4
Coombes .. ..	none	..	Henfield .. ..	25
Botolphs .. ..	1	..	Ashurst .. ..	5
Shermanbury .. ..		2		
Total .. ..		150		

### INFANT MORTALITY.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under one year.	Ratio to 1,000 Births.		
			1899.	1898.	1888-97.
Southwick Parish ..	110	16	145	161	106
Rest of Rural District ..	73	8	110	83	74
Steyning Parish ..	26	4	154	—	104
Henfield Parish ..	28	2	71	233	85
Rest of Rural District ..	37	2	54	77	77
Total ..	274	32	117	116	87

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000 during the past year, the mean proportion in the preceding ten years having been 151.

### ZYMOTIC MORTALITY.

The deaths from zymotic diseases were 9 in the cases of those which are notifiable, and 16 in the other class where the number of cases cannot be obtained. The rate of mortality was therefore equal to 2·13 per 1,000.

					Cases.	Deaths.
Fever.	Small Pox	..	..	..	none	none
	Scarlatina	..	..	..	14	1
	Diphtheria	..	..	..	39	5
	Membranous Croup			..	none	none
	Typhus	..	..	..	none	none
	Enteric	..	..	..	12	3
	Continued	..	..	..	none	none
	Relapsing	..	..	..	none	none
	Puerperal	..	..	..	1	none
Cholera	..	..	..	none	none	
Erysipelas	..	..	..	4	none	
Total				..	63	9

In the other class the deaths were thus recorded :—

Measles .. .. .	1
Whooping Cough .. .. .	4
Diarrhœa and Dysentery .. .. .	11
Rheumatic Fever .. .. .	none
Total .. .. .	16

The Infectious Diseases (Notification) Act, 1889, came into force in this district on May 1st, 1891.

The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts Amendment Act, 1890, came into force here on September 29th, 1891.

The prevalence in each quarter of each notifiable disease is shown in the following table :—

			1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.	1896.
Small Pox	..	..	—	—	—	—	—	—	—	2
Scarlatina	..	..	1	1	11	1	14	11	2	10
Diphtheria	..	..	11	14	2	12	39	40	6	8
Membranous Croup	..		—	—	—	—	—	—	1	—
Enteric Fever	..	..	4	3	4	1	12	8	10	13
Continued Fever		..	—	—	—	—	—	—	1	—
Puerperal Fever		..	1	—	—	—	1	—	—	—
Erysipelas	..	..	—	—	4	—	4	4	7	7
Total	..	..	—	—	—	—	—	—	—	—
			17	18	21	14	70	63	27	40

Each of the five deaths from diphtheria occurred in Henfield Parish where this disease lingered on in a few instances from the epidemic of the preceding year. These deaths occurred in families amongst whom other children had been affected some months before. In other respects, the district was very free during the year from any epidemic prevalence of disease.

## SOUTHWICK SEWERAGE AND DRAINAGE.

During the past year the sewerage outfall works, being carried out by Messrs. Cooke & Co. for the combined districts of Portslade and Southwick, to the designs of Mr. C. O. Blaber, M.I.C.E., have progressed steadily and are now nearing completion.

A brick barrel sewer, 6ft. in diameter, has been constructed, extending for 1,600ft. along the Lower Shoreham Road, from near the Coastguard Station, where it receives the sewage from Portslade and Fishergate, to a penstock chamber at Messrs. Penney's wharf opposite the bottom of Station Road.

This sewer will receive the drainage of all the houses up to this point, including that from the new roads at the top of the Green.

Another and smaller brick barrel sewer, 3ft. in diameter, has been laid, discharging into the same penstock chamber and extending for 700ft. in a westerly direction along the main road in front of Adur Terrace; it is then continued by means of 12in. pipes as far as Victoria Road, where it receives the sewage discharged from all the roads upon the west side of the Green.

The sewage will be retained in these tank sewers during high water by means of the above-mentioned penstock and, when the tide is favourable, the contents will be discharged into the seaby means of a syphon under the eastern arm of Shoreham Harbour consisting of 2ft. 6in. cast iron pipes.

This syphon commences on the north side of the penstock chamber on Messrs. Penney's wharf, then dips under the channel and rises to a valve chamber on the opposite side of the harbour, whence it is carried to a point 1,000ft. beyond low water mark.

The plans for the general sewerage scheme of the parish are now under consideration, and it is hoped to complete the whole of the sewers by the time the outfall is in working order.

#### WATER SUPPLY.

STEYNING.—There is a Water Company working under a Provisional Order for the supply of Steyning, Bramber, and Beeding.

The works are in Beeding Parish adjoining the road to Henfield and about half-a-mile from any buildings.

A large well, sunk 54ft. deep into the chalk, with two adits running north and south, has tapped the flow of water from the hills, and gives a constant supply of good water as the following analysis will show.

The water is pumped to a reservoir on the downs 220ft. above the sea level, giving a pressure at Steyning sufficient to throw water over the highest house.

There is a good engine house and pump room and engine power sufficient to supply a district three times the size.

Mains have been laid from the works along the main road through Beeding and Bramber to Steyning, and distributing mains throughout all the roads in Steyning.

There seems to be a very good supply of water as the well and adits were dug in the exceptionally dry season of last summer and a steam pump had to be used to keep the water down in the driest weather.

When the quantity of water was found to be sufficient the capital of the Company was enlarged to £15,000 to enable the Company to supply Henfield should that town require the water.



The Company began distribution on the 29th September, and up to the end of the year 88 services have been connected.

A sample of water from this well was analysed by Mr. Cripps in October, 1899, with the following result :—

	Grains per gallon.
Total Solids .. .. .	19·00
Chlorine .. .	1·55
Ammonia .. .. .	0007
Albuminoid Ammonia .. .. .	·0028
Nitrogen as Nitrites .. .. .	absent
Nitrogen as Nitrates .. .. .	·288
Oxygen absorbed in five minutes .. .. .	·0073
Oxygen absorbed in three hours .. .. .	·0256
Lead .. .. .	absent
Temporary Hardness .. .. .	11·85 degrees
Permanent Hardness .. .. .	2·85 degrees
Total Hardness .. .. .	14·70 degrees
Microscopic Examination ..	Chalk, a little vegetable matter, some living paramecia

“This water is of excellent quality; I am of opinion that it may safely be used for drinking purposes, although it is desirable that the slight sediment should be removed by efficient filtration; it is probable that this sediment will cease after the water has been pumped for some time. The degree of hardness is lower than is frequently found in water coming from chalk.”

HENFIELD.—The supply of water was less affected this year, although in many cases much inconvenience resulted. There is an excellent supply at Upper Beeding, which now supplies Steyning, and it would be quite practicable to extend this supply to Henfield to the common advantage of all.

### SYSTEMATIC INSPECTION.

The following is a list of routine work during the year, 1899, as recorded in the books of the Sanitary Inspector, Mr. T. F. Gates :—

No. of Houses and Premises inspected .. .. .	992
No. of Houses and Premises reported .. .. .	194
No. of Nuisances abated by verbal and written notice .. .. .	100
Nuisances abated by notice .. .. .	15
Houses disinfected and cleansed .. .. .	61
Houses whitewashed .. .. .	8
Water certificates granted for new houses .. .. .	51
Wells cleansed .. .. .	2
New wells .. .. .	2
New Artesian Bored Tubes .. .. .	7
Samples of water analysed .. .. .	2
Cases of overcrowding abated .. .. .	2
Earth closets in lieu of old privies .. .. .	2
Unwholesome food seized .. .. .	none

## BY-LAWS.

The By-Laws in force in this district are the same as those mentioned in my 24th Annual Report for 1897.

## SCAVENGING AND CLEANSING.

At Southwick and Steyning contracts are made each year for the removal of ashes and house refuse once a fortnight.

## COWSHEDS AND DAIRIES.

There are 46 Cowsheds and Dairies, which are frequently inspected, limewashed when necessary, and well kept.

At Salt Lake Dairy, Lancing, one cow died of anthrax on September 15th. This case was dealt with by the West Sussex Police.

## BAKEHOUSES

There are 23 Bakehouses which are inspected from time to time and found in a satisfactory condition.

## SLAUGHTER HOUSES.

There are 9 slaughter houses which are inspected at various times and kept in a clean condition.

## MARGARINE ACT.

Very little is sold, and at places where it is sold the clauses of the Act have been complied with.

## SEWERAGE AND DRAINAGE

STEYNING.—The main sewer and drain have been regularly flushed and the outfall tank and ditches cleared of various obstructions.

About 12 feet of the main sewer in High Street, near College Hill—which was probably crushed by the steam roller—have been repaired with new 9-inch drain pipes.

HENFIELD.—The outfall tank and drain on the Common have been emptied and cleansed; 2 cesspools in Wantly Field and 1 in Martyn Croft have been emptied.

## COMMON LODGING HOUSES

There is no common lodging house in this district.

## PROCEEDINGS BEFORE THE MAGISTRATES.

No proceedings were taken before the Magistrates during the year.

## INQUESTS.

Inquests were held in twelve cases :—Female, 73 years, accidental fall, fracture of leg followed by gangrene; male, 54 years, suicide by hanging; female, 73 years, syncope from heart disease; male, 56 years, suicide by hanging; female, 52 years, natural causes, heart disease; female, 65 years, heart failure; male, 75 years, dislocation of neck by a fall; male, 68 years, aneurism of aorta; female, 53 years, suicide by hanging; male, 14 years, drowned; male, 60 years, bronchitis, accelerated by exposure; female, 31 years, disease of liver and stomach.

There were no deaths returned as “not certified” during the year.



## STEYNING WEST RURAL DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the five years, 1895-99.

Year.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.
1895... ..	144	29	6	3	12	32	62
1896... ..	116	18	8	5	6	39	40
1897... ..	141	25	9	2	6	47	52
1898... ..	143	30	10	7	9	42	45
1899... ..	150	32	8	5	8	40	57

TABLE 2.—Showing the Deaths from various causes in the twenty years, 1876-95, and in 1896-99.

Period.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1876-80 ...	—	6	8	—	2	6	3	—	5	—	5	6	16	23	—	—	80
1881-85 ..	—	16	27	—	3	17	2	—	1	—	3	5	21	17	1	—	113
1886-90 ...	—	—	10	—	2	12	—	—	—	—	5	4	15	18	1	6	73
1891-95 ...	—	1	9	2	—	10	—	—	—	—	4	6	14	9	1	34	90
1896 ...	—	—	—	—	—	2	—	—	—	—	1	1	11	1	—	—	16
1897 ...	—	—	—	1	—	2	—	—	—	—	—	—	2	3	1	1	10
1898 ...	—	—	1	—	—	2	—	—	—	—	2	3	2	7	1	3	21
1899 ...	—	1	5	—	—	3	—	—	—	—	—	1	4	11	—	5	30
Total ...	—	24	60	3	7	54	5	—	6	—	20	26	85	89	5	49	436

## STEYNING WEST RURAL DISTRICT.

TABLE 3.—Showing the Death-rate per 100,000 persons living from all causes, and from various causes, in different localities, during the twenty years, 1876-95, and the Death-rate in 1896-99.

LOCALITY.			All Diseases.	Notifiable.	Non-notifiable.	Phthisis.	Lung Disease.	Heart Disease.
Southwick Parish	..	..	1,479	84	101	135	213	107
Rest of R.D.	..	..	1,320	75	77	112	148	116
Steyning Parish	..	..	1,614	62	77	171	284	110
Henfield Parish	..	..	1,477	79	38	131	197	170
Rest of R.D...	..	..	1,437	60	58	156	210	126
Mean	..	..	1,460	74	73	140	205	125
PERIOD.								
1876-80	..	..	1,565	66	84	204	223	107
1881-85	..	..	1,457	128	82	128	186	130
1886-90	..	..	1,448	54	70	128	220	124
1891-95	..	..	1,370	47	55	100	193	138
1896	..	..	1,026	26	115	88	168	124
1897	..	..	1,226	26	52	130	87	78
1898	..	..	1,233	43	112	52	190	103
1899	..	..	1,276	77	136	60	111	145

(A)—Table of DEATHS during the Year 1899, in the STEYNING W

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and upwards. (h)		Small Pox. (j)	Scarlatina. (k)
Southwick Parish ... ..	39	15	1	—	2	12	9	Under 5 ..... 5 upwards.		
Rest of Rural Sub-District ...	32	8	1	1	1	10	11	Under 5 ..... 5 upwards.		
Steyning Parish ... ..	26	4	2	1	1	8	10	Under 5 ..... 5 upwards.		1
Henfield Parish ... ..	25	2	2	3	1	6	11	Under 5 ..... 5 upwards.		
Rest of Rural Sub-District ...	22	3	2	—	3	3	11	Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
TOTALS.....	144	32	8	5	8	39	52	Under 5 ..... 5 upwards.		1

The subjoined numbers have also to be taken

Deaths occurring outside the District among persons belonging thereto.....	6	—	—	—	—	1	5	Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...								Under 5 ..... 5 upwards.		



LOCAL DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

[illegible]

ent in judging of the above records of mortality.

[illegible]

## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the STEYNING WEALTHY

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SMALLPOX COMING TO THE KNOWLEDGE OF THE OFFICER OF HEALTH						
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5		
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	FEBRILE ENTERIC OR TYPHOID.	
(a)	(b)	(c)	(d)	(e)							
Southwick Parish ... ..	2,564	3,050	110	Under 5 ..... 5 upwards.			3 ..... 3				
Rest of Rural Sub-District ...	2,654	2,900	73	Under 5 ..... 5 upwards.			2 ..... 4				
Steyning Parish ... ..	1,705	1,750	26	Under 5 ..... 5 upwards.				5			
Henfield Parish ... ..	2,006	2,150	28	Under 5 ..... 5 upwards.			3 ..... 23				
Rest of Rural Sub-District ...	1,881	1,900	37	Under 5 ..... 5 upwards.				4	1		
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
TOTALS .....	10,810	11,750	274	Under 5 ..... 5 upwards.			8 ..... 31				

INFECTIOUS SICKNESS, coming to the knowledge of the Medical  
District; classified according to DISEASES, AGES, and LOCALITIES

[illegible]



# STEYNING EAST RURAL DISTRICT.

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pp. 17 et seq.

## STEYNING EAST RURAL DISTRICT.

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The Steyning Rural Sanitary District was divided into two portions on the passing of the Local Government Act, 1894. Steyning West includes fifteen parishes which are enumerated on page 2, while Steyning East included the remaining seven parishes. Part of Edburton is now under its own name in the western division portion, while the rest, known as Fulking, is now in the eastern division. This change came into effect from January 1st, 1895, and the district remained the same until March 31st, 1898, when the urban sanitary district of Portslade-by-Sea was formed by taking out the populous part, and leaving a large rural area on the downs with a small population, estimated at 150, in the rural portion of the parish of Portslade, which portion is now therefore a rural parish. The following figures have reference only to this new district in the present and in previous years :—

Population in 1861 .. .. .	1,139
„ „ 1871 .. .. .	1,312
„ „ 1881 .. .. .	1,564
„ „ 1891 .. .. .	1,972
Male Population in 1891 .. .. .	920
Female „ „ „ .. .. .	1,052
No. of Inhabited Houses in 1891 .. .. .	365
„ Uninhabited Houses in 1891 .. .. .	16
„ Persons to each House in 1891 .. .. .	5.40

Patcham is the only parish in this district with a large population.

	Population in 1891.
West Preston .. .. .	159
Patcham .. .. .	1,064
West Blatchington .. .. .	95
Hangleton .. .. .	49
Portslade (Rural) .. .. .	150
Fulking .. .. .	150
Poynings .. .. .	305

The following table gives the usual information as to the incidence of various diseases in each parish in this district.

Table showing the Deaths from various causes in each Parish in the twenty-four years, 1876-99.

PARISH.	Notifiable.								Non-notifiable.				Phthisis.	Lung Disease.	Heart Disease.	All Diseases.
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.				Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.				
West Preston ..	—	—	4	—	—	—	—	—	1	1	2	—	—	1	1	24
Patcham ..	—	2	1	—	—	1	—	—	2	4	14	2	18	34	32	255
West Blatchington ..	1	—	—	—	—	—	—	—	—	—	—	—	1	3	2	19
Hangleton ..	—	—	—	—	—	—	—	—	—	—	1	—	3	5	1	20
Portslade Rural (1898)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Fulking ..	—	—	—	—	—	—	—	—	2	2	—	—	2	6	6	49
Poynings ..	—	—	1	—	—	2	—	—	2	—	1	—	11	14	5	83
Total ..	1	2	6	—	—	3	—	—	7	7	18	2	35	63	47	451



All deaths occurring in Shoreham Workhouse, which is situated outside this district, have been distributed each year to each parish whence the inmate came.

## BIRTHS AND BIRTH-RATE

During the year 1899, the births of 35 children were registered; of these 18 were male, and 17 were female.

Estimating the population in the middle of the year at 2,350, the birth-rate was equal to 14·9 per 1,000 persons living.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

The following table shows the births and birth-rate in each locality during the last three years:—

		Births.			Birth-rate.		
		1897.	1898.	1899.	1897	1898.	1899.
Patcham Parish	..	20	21	16	16·7	17·5	13·3
Portslade Parish	..	2	3	6	13·4	20·0	20·0
Rest of District	..	23	20	13	25·0	25·0	15·3
		—	—	—	—	—	—
Mean	..	42	44	35	20·0	20·5	14·9

## GENERAL MORTALITY.

There were 42 deaths registered in this district in the year 1899, but from this number must be deducted the 21 deaths in Hangleton Hospital of persons not belonging to the district, leaving the corrected figures at 21.

Estimating the population in the middle of the year at 2,350, the death-rate was equal to 8·9 per 1,000 persons living.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

The following table shows the deaths and death-rate in each locality during the past four years:—

		Deaths.				Death-rate.			
		1896.	1897.	1898.	1899.	1896.	1897.	1898.	1899.
Patcham Parish	..	6	17	10	10	5·0	14·2	8·3	8·3
Rest of Sub District		6	7	6	11	7·5	8·7	6·3	9·5
		—	—	—	—	—	—	—	—
Total	..	12	24	16	21	6·2	12·0	7·4	8·9

In each parish the deaths were thus distributed :—

West Preston	..	3	..	Hangleton	..	..	none
Patcham	..	10	..	Portslade	..	..	none
West Blatchington	..	2	..	Poynings	..	..	3
Fulking	..	..	..	..	..	3	
Total	..	21					

### INFANT MORTALITY.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under one year.	Ratio to 1,000 Births.	Ratio 1898.
Patcham Parish	.. 16	1	62	48
Portslade Parish	.. 6	—	—	333
Rest of District	.. 13	—	—	100
Total	.. 35	1	28	91

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000 during the past year, the mean proportion in the preceding ten years having been 151.

### ZYMOTIC MORTALITY.

There was one death from zymotic disease in the case of those which are notifiable, and none in the other class where the number of cases cannot be obtained. The rate of mortality was therefore equal to 0.42 per 1,000.

	Cases.	Deaths.
Small Pox	.. none	none
Scarlatina	.. 8	none
Diphtheria	.. 2	1
Membranous Croup	.. none	none
Fevers.	{ Typhus	.. none
	{ Enteric	.. 2
	{ Continued	.. none
	{ Relapsing	.. none
	{ Puerperal	.. none
	{ Cholera	.. none
Erysipelas	.. none	none
Total	.. 12	1

In the other class no deaths were recorded :—

	Deaths.
Measles	.. none
Whooping Cough	.. none
Diarrhoea and Dysentery	.. none
Rheumatic Fever	.. none
Total	.. none

The Infectious Disease (Notification) Act, 1889, came into force in this district on May 1st, 1891.

The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts Amendment Act, 1890, came into force here on September 29th, 1891.

The prevalence in 1897-99 and in each quarter of 1899 of each notifiable disease is shown in the following table:—

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox .. ..	—	—	—	—	—	—	—
Scarlatina .. ..	—	—	5	3	8	13	1
Diphtheria .. ..	1	—	—	1	2	1	—
Membranous Croup	—	—	—	—	—	—	—
Enteric Fever ..	2	—	—	—	2	—	—
Continued Fever ..	—	—	—	—	—	—	—
Puerperal Fever ..	—	—	—	—	—	—	—
Erysipelas .. ..	—	—	—	—	—	1	1
Total .. ..	—	—	—	—	—	—	—
	3	—	5	4	12	15	2

## INFECTIOUS DISEASE.

All cases of Infectious Disease have been enquired into, and the necessary precautions carried out with regularity and efficiency by the Sanitary Inspector.

Disinfectants are supplied free of charge.

The disinfection of each house is afterwards carried out, and the notices served where necessary for cleansing and purifying of the premises.

## HOSPITAL ACCOMMODATION.

The Hove Town Council (by agreement) provides 1 bed at the Hangleton Hospital for the district on the payment of a retaining fee.

## WATER SUPPLY.

Patcham, Portslade, and Preston are well supplied with good water from the Brighton Corporation Waterworks.

## DRAINAGE,

There is no system of Drainage at present in any of the seven parishes.



## COWSHEDS AND DAIRIES.

Regulations under the Contagious Diseases (Animals) Act, 1886, and the Dairies, Cowsheds, and Milk Shops Order of 1885, were adopted on April 26th, 1887, and came into force on June 1st, 1887.

These premises are visited as regularly as possible to see that the provisions of the Acts are carried out.

## PROCEEDINGS BEFORE THE MAGISTRATES.

No proceedings were taken before the Magistrates during the year.

## INQUESTS.

A inquest was held in one case :—Male, 33 years, suicide on the railway.

There were no deaths returned as “not certified” during the year.

# STEYNING EAST RURAL DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the five years, 1895-99.

Year.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.
1895... ..	20	4	4	—	2	5	5
1896... ..	12	1	—	—	1	5	5
1897... ..	24	2	—	1	—	7	14
1898... ..	16	4	—	—	2	5	5
1899... ..	21	1	3	3	1	6	7

# STEYNING EAST RURAL DISTRICT.

TABLE 2.—Showing the Deaths from various causes in the twenty years, 1876-95, and in 1896-99.

Period.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1876-80 ...	—	—	—	—	—	—	—	—	1	—	1	1	1	5	—	—	9
1881-85 ..	1	1	1	—	—	3	—	—	—	—	—	3	—	6	—	—	15
1886-90 ...	—	—	—	—	—	—	—	—	—	—	1	—	3	5	2	—	11
1891-95 ...	—	1	4	—	—	—	—	—	—	—	—	3	3	2	—	6	19
1896 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1897 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1898 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1899 ...	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	3	4
Total ...	1	2	6	—	—	3	—	—	1	—	2	7	7	18	2	9	58



## STEYNING EAST RURAL DISTRICT.

TABLE 3.—Showing the Death-rate per 100,000 persons living from all causes, and from various causes, in different localities, during the twenty years, 1876-95, and the Death-rate in 1896-99.

LOCALITY.				All Diseases.	Notifiable.	Non-notifiable.	Phthisis.	Lung Disease.	Heart Disease.
Patcham Parish	..	..	..	1,092	41	110	93	155	145
Rest of District	..	..	..	1,153	41	83	118	173	90
Mean	..	..	..	1,128	41	94	108	166	112
PERIOD.									
1876-80	..	..	..	1,027	27	95	135	135	—
1881-85	..	..	..	1,200	75	112	175	125	—
1886-90	..	..	..	1,200	11	115	80	229	—
1891-95	..	..	..	1,010	53	84	42	158	—
1896	..	..	..	600	—	—	—	150	—
1897	..	..	..	1,200	—	—	—	100	100
1898	..	..	..	744	—	—	—	93	140
1899	..	..	..	893	42	—	—	42	42

(A)—Table of DEATHS during the Year 1899, in the STEYNING EAST

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.									
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and upwards. (h)		1 Small Pox. (i)	2 Scarlatina. (j)
Portslade Rural Parish ...	—	—	—	—	—	—	—	Under 5 5 upwards.		
Patcham Parish ...	10	1	2	1	1	3	2	Under 5 5 upwards.		
Rest of District ...	11	—	1	2	—	3	5	Under 5 5 upwards.		
Hangleton Hospital ..	21	2	11	6	1	1	—	Under 5 5 upwards.		1
								Under 5 5 upwards.		
								Under 5 5 upwards.		
								Under 5 5 upwards.		
								Under 5 5 upwards.		
								Under 5 5 upwards.		
								Under 5 5 upwards.		
TOTALS.....	42	3	14	9	2	7	7	Under 5 5 upwards.		1
The subjoined numbers have also to be taken in										
Deaths occurring outside the District among persons belonging thereto.....								Under 5 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...	21	2	11	6	1	1	—	Under 5 5 upwards.		1

RAL DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

[illegible]

ount in judging of the above records of mortality.

[illegible]



## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the STEYNING EAS

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER.					
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5	6
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus. Fever.	Enteric Fever.
(a)	(b)	(c)	(d)	(e)						
Portslade Rural Parish ...	150	250	6	Under 5 ..... 5 upwards.						
Patcham Parish ... ..	1,064	1,200	16	Under 5 ..... 5 upwards.			1			
Rest of Rural District ... ..	758	850	13	Under 5 ..... 5 upwards.		3				
Hangleton Hospital ... ..	20	50	—	Under 5 ..... 5 upwards.		1	1			
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
TOTALS .....	1,992	2,350	35	Under 5 ..... 5 upwards.		8	1			

INFECTIOUS SICKNESS, coming to the knowledge of the Medical  
District; classified according to DISEASES, AGES, and LOCALITIES

[illegible]

# HORSHAM RURAL DISTRICT.

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pp. 31 et seq.



## HORSHAM

### RURAL DISTRICT COUNCIL.

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The population in this district was 13,400 at the census of 1841 and 14,018 in 1851; partly owing to changes in the area, it rose to 17,876 in 1861, and to 19,935 in 1871, and then by steady increases to 22,300 in 1881, and to 24,885 in 1891.

The above figures, however, include the urban district of Horsham, which was formed in 1875, and which had a population of 6,874 in 1881 and 8,087 in 1891; Crawley was added in 1880. The parish of Cowfold was added to this district on the passing of the Local Government Act, 1894; the figures of this parish relate only to 1895-98.

The following figures relate only to the late rural sanitary area:—

	1861.	1871.	1881.	1891.
Area in Statute Acres ..	—	68,798	69,706	71,277
Number of Inhabited Houses..	2,375	2,713	3,013	3,410
„ Uninhabited „	56	135	177	232
Population .. ..	13,022	13,710	15,426	16,798
Males .. ..	6,872	7,097	7,915	8,585
Females .. ..	6,150	6,613	7,511	8,213
Persons to a House .. ..	5.48	5.05	5.12	4.92

The population has increased considerably in Ifield and in Horsham North Parishes, while it has changed but slowly in the rest of the district.

The following table gives the usual information as to the incidence of various diseases in each parish in this district.

Table showing the Deaths from various causes in each Parish in the twenty-four years, 1876-99.

PARISH.	Notifiable.							Non-notifiable.				Phthisis.	Lung Disease.	Heart Disease.	All Diseases.		
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.				Erysipelas.	Measles.	Whooping Cough.					Diarrhoea.	Rheumatic Fever.
					Typhus.	Enteric.	Continued.	Puerperal.									
West Grinstead	—	5	11	—	4	2	1	1	6	9	5	—	38	62	47	496	
Shipley	—	1	5	1	3	—	1	1	2	10	4	—	33	62	28	381	
Nuthurst	—	1	3	—	1	—	1	—	4	3	3	—	27	41	32	275	
Horsham (South)	1	2	7	—	—	2	1	—	6	3	4	—	11	37	19	214	
Horsham (North)	1	3	8	—	—	2	2	1	9	11	21	—	73	147	66	795	
Lower Beeding	—	—	6	—	—	—	1	—	3	13	6	—	30	83	30	386	
Crawley (1880)	—	—	3	—	—	—	—	—	3	1	—	—	29	41	6	107	
Ifeld ..	1	5	20	1	7	1	—	2	10	13	9	—	58	118	102	786	
Rusper	—	1	—	—	—	—	—	1	1	2	3	1	16	26	20	165	
Warnham	2	1	5	—	—	—	—	—	7	10	7	4	29	68	34	358	
Slinfold	—	1	8	—	1	1	—	2	1	4	3	—	29	42	35	294	
Itchingfield	—	3	2	—	1	—	—	—	—	4	4	—	16	19	10	137	
Rudgwick	—	2	3	—	4	—	—	—	6	7	3	—	40	67	46	417	
Billingshurst	—	—	4	—	4	—	—	1	3	13	10	—	73	108	57	601	
Cowfold (1895-98)	—	—	1	—	—	—	—	—	—	1	1	—	4	9	5	46	
Total ..	7	25	86	1	2	25	8	8	61	104	83	14	506	930	537	5428	

POPULATION.—It is difficult to give precisely the population of this large area at the present time, nor can it be known with accuracy until the Census has been taken in 1901.

Ifield has increased very much, and also the district in North Horsham round Star Road and Roffey; there are also many fresh houses at Billingshurst.

In making an estimate for this year I have been chiefly guided by taking the number of new houses for which water certificates have been granted since April, 1891.

In 1899, about one hundred certificates were given, a number which has never been reached before.

All deaths occurring in Horsham Workhouse, which is situated inside this district, have been distributed each year to each parish whence the inmate came.

#### BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 409 children were registered; of these 203 were male, and 206 were female.

Estimating the population in the middle of the year at 19,470, the birth-rate was equal to 21·0 per 1,000 persons living.

The births and birth-rate during the past ten years were thus registered :—

Year.	Births.	Birth-rate.	Year.	Births.	Birth-rate.
1890 ..	420 ..	25·2	1895 ..	432 ..	23·3
1891 ..	467 ..	27·8	1896 ..	423 ..	22·5
1892 ..	399 ..	23·4	1897 ..	410 ..	21·5
1893 ..	394 ..	22·8	1898 ..	444 ..	23·1
1894 ..	416 ..	23·9	1899 ..	409 ..	21·0

The mean number of births is 421, and the mean birth-rate is 23·5 per 1,000 of population.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

The following table shows the births and birth-rate in each locality during three periods :—



	Births-rate.		Births.		Birth-rate.	
	1877-84.	1983-97.	1898.	1899.	1898.	1899.
South Sub-District..	31·9	24·0	85	70	20·0	16·5
Ifield Parish .. .. }	31·7	20·9	78	64	24·2	19·4
Rest of North S.D... }		24·1	143	150	22·2	22·7
West Sub-District ..	32·2	21·6	120	109	27·3	24·8
Cowfold Parish ..	—	—	18	16	19·6	17·4
Mean ..	31·9	22·8	444	409	23·1	21·0

### GENERAL MORTALITY.

There were 267 deaths registered in this district during the year 1899, but to this number must be added the death of 1 person in Horsham Cottage Hospital, and from this number must be deducted the deaths of 10 persons in Horsham Workhouse, who came from the Horsham Urban Sanitary District, thus leaving the corrected figures at 258. The remaining workhouse deaths were distributed among the several parishes whence each inmate came, viz., Shipley 1, Nuthurst 2, Horsham 1, Ifield 3, Rusper 2, Warnham 2, Slinfold 3, Billingshurst 2, and Cowfold 1.

Estimating the population in the middle of the year at 19,470, the death-rate was equal to 13·2 per 1,000 persons living.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

The variations in the death-rate during the past ten years in this district are here given :—

Year.	Deaths.	Death-rate.	Year.	Deaths.	Death-rate.
1890 ..	210	12·6	1895 ..	267	14·4
1891 ..	240	14·2	1896 ..	214	11·4
1892 ..	289	16·9	1897 ..	232	12·2
1893 ..	235	13·6	1898 ..	248	12·8
1894 ..	204	11·7	1899 ..	258	13·2

Thus the mean annual number of deaths is 240, and the mean annual death-rate is 13·3 per 1,000 of population. During the same period there were 4,214 births, so that the natural increase of population by excess of births over deaths was 1811.

In each locality the deaths and death-rate are here shown for the past four years :—

	Deaths.				Death-rate.			
	1896.	1897.	1898.	1899.	1896.	1897.	1898.	1899.
South Sub-District ..	41	51	55	54	9·7	12·1	12·9	12·7
Ifield Parish ..	40	46	31	41	13·1	14·5	9·6	12·4
Rest of North S.D...	65	68	98	91	10·4	10·7	15·2	13·8
West Sub-District ..	59	59	53	61	13·6	13·5	12·0	13·9
Cowfold Parish ..	9	8	11	11	10·0	8·7	11·9	11·9
Total ..	214	232	248	258	11·4	12·2	12·8	13·2

In each parish the deaths were thus distributed :—

West Grinstead	..	19	..	Ifield	..	..	41
Shipley	..	9	..	Rusper	..	..	9
Nuthurst	..	15	..	Warnham	..	..	15
Horsham (South)	..	11	..	Slinfold	..	..	12
Horsham (North)	..	38	..	Itchingfield	..	..	7
Lower Beeding	..	20	..	Rudgwick	..	..	9
Crawley	..	9	..	Billingshurst	..	..	33
		Cowfold	..	..	..	11	
		Total	..	258			

### INFANT MORTALITY.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

		Births.	Deaths under one year.	Ratio to 1,000 Births.	Ratio 1898.
South Sub-District	..	70	6	86	94
Ifield Parish	..	64	6	94	51
Rest of North Sub-District		150	13	81	105
West Sub-District	..	109	12	110	83
Cowfold Parish	..	16	2	125	55
		—	—	—	—
Total	..	409	39	95	86

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000 during the past year, the mean proportion in the preceding ten years having been 151.

### ZYMOTIC MORTALITY.

The deaths from zymotic diseases were 3 in number in the case of those which are notifiable, and 15 in the other class where the number of cases cannot be obtained. The rate of mortality was therefore equal to 0.92 per 1,000.

				Cases.	Deaths.
	Small Pox	..	..	none	none
	Scarlatina	..	..	61	none
	Diphtheria	..	..	54	3
	Membranous Croup	..	..	none	none
Fevers.	Typhus	..	..	none	none
	Enteric	..	..	3	none
	Continued	..	..	none	none
	Relapsing	..	..	none	none
	Puerperal	..	..	none	none
	Cholera	..	..	none	none
	Erysipelas	..	..	5	none
				—	—
	Total	..	..	123	3

In the other class the deaths were thus recorded :—

	Deaths.
Measles .. .. .	none
Whooping Cough .. .. .	7
Diarrhoea and Dysentery .. .. .	6
Rheumatic Fever .. .. .	2
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Total ..	15

The prevalence in each quarter of 1899 and in 1897-98 of each notifiable disease is shown in the following table :—

		1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox	.. ..	—	—	—	—	—	—	—
Scarlatina	.. ..	3	19	18	21	61	27	24
Diphtheria	.. ..	9	12	10	23	54	18	34
Membranous Croup		—	—	—	—	—	—	—
Enteric Fever	.. ..	—	—	3	—	3	4	17
Continued Fever	.. ..	—	—	—	—	—	—	1
Puerperal Fever	.. ..	—	—	—	—	—	—	—
Erysipelas	.. ..	2	1	—	2	5	6	8
		—	—	—	—	—	—	—
Total	.. ..	14	32	31	46	123	55	84

The Infectious Disease (Notification) Act, 1889, came into force in this district on April 2nd, 1890.

SCARLATINA was prevalent in a mild form in several parishes. In Lower Beeding there were three cases in September, 1898, followed by eighteen in October, 1898, after which only one case occurred in that parish in January, 1899, and then the disorder ceased. In May, September, and October, 1899, there were again several cases, as shown in the following table :—

		PARISH.							Total.
Month.		Star Road, Horsham.	Ifeld.	Shipley.	Cowfold.	West Grinstead.	Warnham	Lower Beeding.	
January .. .. .	..	—	—	—	—	—	—	1	1
March .. .. .	..	—	2	—	—	—	—	—	2
April .. .. .	..	—	—	—	2	—	—	—	2
May .. .. .	..	3	—	4	5	4	—	—	16
June .. .. .	..	—	—	1	—	—	—	—	1
August .. .. .	..	—	2	—	—	—	—	—	2
September .. .. .	..	12	—	2	—	—	—	2	16
October .. .. .	..	6	4	—	—	—	—	7	17
November .. .. .	..	—	1	—	—	—	—	—	1
December .. .. .	..	—	—	2	—	—	1	—	3
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Total ..		21	9	9	7	4	1	1	



	Male.	Female.	Total.
Under five years . . .	—	4	4
Five to ten years . . .	12	20	32
Ten to fifteen years . . .	2	12	14
Fifteen to twenty years . . .	3	4	7
Twenty years and over . . .	—	4	4
Total . . . . .	17	44	61

INMATES.				CASES.			
Adults.	0-5	5-10	10-15	Adults.	0-5	5-10	10-15
M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
58 52	11 12	23 28	16 19	3 8	— 4	12 20	2 12
110		109		11		50	
219				61			

These 219 persons dwelt in 38 houses, and of these inmates, 61, or 28 per cent. were attacked, all persons of 15 years of age and upwards being reckoned as adults. Among the adults, 10 per cent. had the disorder ; amongst the children 46 per cent. contracted the disease ; no infant under 2 years of age had scarlatina.

DIPHTHERIA appeared in several parishes ; in January there were several cases at Southwater apparently in connection with school attendance, and a few more cases were recorded in April and May ; during the summer a few isolated cases were met with at Ifield, West Grinstead, and Billingshurst ; there was a little increase, as usual, in the autumn, but there was no epidemic prevalence, and at the end of the year the disease abated. Out of the 54 children attacked, there were three deaths, one at Nuthurst, and two at Southwater.

### THE DRAINAGE OF ROFFEY.

An inquiry on this subject was held at Horsham on January 9th, 1899.

The Clerk to the County Council (Mr. F. Merrifield) having read the notice convening the inquiry, read the application of the Horsham Urban Council, which stated that the Council felt that the state of things existing in the Star Road district was a source of danger to the health of the town, and ought not to be allowed to continue, and they were of opinion that the transfer of the district to the urban district was the remedy and would benefit the whole of the inhabitants, as the Urban Council could drain the district and dispose of the sewage, and could also furnish a supply of water. Owners of houses would be relieved from payment of the sewer rate (which it had been proposed should be increased to 1s. 6d. in the £ per annum), water consumers would only pay half the charge they were now paying, and the district would have the advantage of street lighting, paving, and other benefits enjoyed in an urban district.

Mr. Muir explained that the district was originally formed as an urban district in 1875, under the government of a Local Board. There

was an extension of the boundary in 1877, but since that date there had not been any extension. He was not able to give the population of the urban district in 1875 or 1877, but in 1881 the population was 6,876, and in 1891 it was 8,097, while at the present time it was estimated at 9,000, so that the population had increased within the urban district since 1881 by over 2,000. What was more pertinent was the increase in the district outside the urban district as it at the present time existed. There had been an increase in the ratable value since 1883 from £1,305 to £2,553, so that it was obvious that not only inside the district but immediately outside the district and within the proposed extension, the population and the houses had been on the increase. An application was made to the Local Government Board in 1883 for an extension of the boundaries. The rural sanitary authority then existing passed a resolution on January 5th, 1884, to the effect that there was no objection on their part to the extension asked for if the urban authority would consent to include the Star Road. The application was heard before the Local Government Board Inspector, and on his Report the Local Government Board wrote stating that they would consent to the extension asked for if in addition to that extension the urban authority would consent to taking the hamlets of Roffey and Little Haven, Roffey being at the extremity of Star Road and Little Haven due north. The urban authority was not able to consent to this because they had considerable difficulty with their own sewage matter, and they did not at that time see their way in dealing with a greater portion of the sewage. Since that period the Urban Council had acquired land for a sewage farm, and had executed sewage works which would enable them to deal with their own sewage, and the sewage of the district proposed for extension, even if it continued to increase at the rate which it was now increasing, for many years to come. A subsequent application was not persevered with as it was not known what the effect of the Local Government Act of 1894, then before Parliament, would have. Since then it appeared that owing to the dry seasons which had been experienced the sanitary condition of the area had been extremely bad, and the Medical Officer of Health for the district, in his Annual Report for the year 1896, referred to the insanitary condition of Star Road. Dr. Kelly had within the last few days viewed the same district, and in his opinion there was a tendency for the state of the things to become worse instead of better.

In visiting the schools the Vicar of Roffey could see the effect upon the health of the children, even as compared with the comparative better health of poor children from London on a visit to Roffey for a few days. As regarded the treatment of the sewage, the effluent discharged itself more or less in its crude condition into a pool called Leachpool, at the rear of some houses in Star Road, and within a few yards of these houses. The stench sometimes was so great that persons driving along the road noticed it. Some houses in the Crawley Road were drained into a sewer connected with the sewer system of the Urban District, and this was under an exceedingly peculiar arrangement, and one absolutely unique in the sanitation of any district. The sewer was owned by the Rural District Council, but it emptied in the Urban District, and the Rural District paid the Urban Authority a rate of 1s. 3d. in the £. The existence of a sanitary authority was for the purpose of looking after the health of the locality, and it was assumed in all legislation for the purpose of sanitation that the whole district should pay for the



sanitation of every part of it. In this case, however, every single house which drained into the sewer had to pay this rate to the Urban Council, and the rate was about to be increased to 1s. 6d. Such an arrangement was absolutely without parallel. The rate was about double that paid in the Urban District. In regard to the water supply, the school had to be supplied by means of a water cart, while the inhabitants had to buy water from the Workhouse, and this was supplied by the Urban Authority by meter. It had been suggested that application should be made to the Local Government Board for a special drainage area, and that the area should remain under the authority of the Rural Sanitary District. Nothing, so far as he knew, had been suggested as to how a water supply was to be provided unless they proposed to purchase it at so much per gallon from the Urban Authority. Close to the Workhouse was the reservoir of the Urban Authority, while the water mains passed through the road in the district which it was proposed to annex within the Urban boundary. A number of houses were connected with these mains, and a rate of 1s. 8d. in the £ was paid for a supply of water. Again, the residents paid a rate double that within the Urban area. The Crawley Road was formerly lit, and he was told that the gas standards still existed, and a main from the Gas Company was laid on. When that portion of Crawley Road was separated from the rest of Horsham, at the time the Local Board was formed, in 1875 or 1877, the lighting ceased, and recently the Rural Authority had requested the Gas Company to remove the gas standards, so that they evidently had no intention of lighting this place.

He was told that there would be opposition from Mr. Allcard, whose property was between two branches of the railway, but he pointed out that a boundary could not be extended only so far as where houses were erected, because if this was done some speculative builder would erect houses just outside. The road running along the southern boundary of Wimblehurst contained one of the water mains of the Urban Council. The Railway Company objected on purely financial grounds, but their property formed a convenient boundary, and his suggestion was that, whatever decision the Committee arrived at in regard to this triangular piece of land, they ought to include the whole of the railway within the Urban District, because in any case the railway formed the boundary. In regard to the defined district, he was certain for the last ten years no special area had been made covering a district in juxtaposition to the Urban District, which was willing to include it within its boundaries. The expense of draining the area by the Urban Council would be the cost of making the necessary sewers and one pumping station, whereas the cost of draining according to the methods proposed by the Rural Council would be very much more. They would have to deal with two outfalls, the annual cost of which would be considerable, apart from the expense of buying the land and making the necessary tanks and the chemical methods for dealing with the sewage. One of the points of the opposition was the amount of the debt on the part of Horsham. It was stated that the Horsham debt of £44,000 was larger than ordinary towns with a similar population. The reason was that there was a difficulty in dealing with the sewage, but this difficulty had been overcome. The general district rate had a downward tendency. Part of this debt was represented by the asset of the Waterworks, which was a Municipal concern, and therefore the Council was in a position to supply the inhabitants with water of a remarkably good



quality at a cheaper rate than a private company. The total amount of the rate for Horsham was 7s. 10d., which included the water rate for the past year. The ratable value was £39,000, and the assessable value £35,276. The rates for the rural part made a total of 3s. 11d., and where water was supplied there was a rate of 1s. 6d., and the sewer rate of 1s. 3d.

It was stated that the area of the Urban District was 833 acres, population 9,000, ratable value £39,908 5s., assessable value £35,276 14s. The amount of outstanding loans was £44,191. The area of the Star Road and Roffey district was 514 acres, number of houses 240, population (including Workhouse) 1,350, ratable value £5,215 13s., assessable value £3,971 10s. 3d. There were 25 houses, with a ratable value of £861, connected with the Crawley Road sewer, and their contributions amounted to £53 16s. 3d. Seventy houses supplied with water contributed £136, while the Workhouse, which was also supplied, with water, paid £45 18s. 4d. for the year ending March 21st, 1898. He next gave particulars as to the rating, which showed that the total amount of rate in the Urban was 7s. 10d., against 6s. 8d. in the Rural.

The Committee made the following report to the West Sussex Council on February 3rd, 1899.

“Your Committee are satisfied that better water supply and sanitary arrangements are imperatively necessary for the greater portion at least of the area proposed to be transferred from the rural to the urban district; this necessity was admitted by all parties represented at the inquiry. They are, however, not at present, satisfied that the transfer is the best mode of providing these. Part of the ground proposed to be included would derive little or no benefit from being brought within the urban district, and the extreme northern portion is so placed that the natural drainage would not be in the direction of the Horsham urban sewerage system. They think it possible that the constitution of part of the parish of Horsham rural as a special drainage district, in accordance with the proposal from the Rural District Council, now before the Local Government Board, may be found a better way of attaining the desired end. That is a question the decision of which is not within the province of the County Council, but it is within that of the Local Government Board, who have at their command the engineering and other assistance to enable them to come to a suitable decision upon it. It may result from the inquiry by the Local Government Board, upon the proposal before them, that that proposal, or some other proposal, which would still leave the area under the Rural District Council, such as the constitution of the Rural Parish or the northern part of it as a separate civil parish, and consequently a separate contributory place, for the drainage and water supply of which an arrangement should be made with the Urban District Council, may be a better solution of the question than would be the transfer to the Urban District. As at present informed, your Committee are strongly disposed to think that either inclusion in the Urban District, or an arrangement under which the drainage and water supply of the Urban District can be rendered available without the great expenditure that would be entailed by providing an independent system of sewerage and water supply, will be found to be the best settlement of the question. Your Committee do not propose to report definitely either for or against the



proposal made by the Urban District Council. It may prove, after the proposal of the Rural District Council has been investigated, that it is not the best way of dealing with the matter. The question of the proposed transfer to the Urban District would then again come forward, and your Committee think it would be in that case a subject for regret that the labour and expense incurred on the consideration of this application should be thrown away, as would be the case if the inquiry were to be begun again *de novo*. They are consequently of opinion that they should defer their final Report until a decision has been come to by the Local Government Board on the application made to them. They therefore recommend to the County Council that the Committee of Inquiry should not be discharged, but should be authorized to defer their further Report until they consider themselves in a position to make a definite recommendation in favour of or against the proposal of the Urban District Council. If, after the application to the Local Government Board has been duly considered, it is rejected, or if it should not be prosecuted with all diligence, your Committee would consider the expediency of meeting again with a view to making their final Report on the proposal of the Horsham Urban District Council. Your Committee recommend that the Clerk of the County Council should be instructed to forward a copy of his Report to the Local Government Board, as well as to the Urban District Council and the Rural District Council, and the other parties represented at the local inquiry."

As the result of this report an application for a loan was made by the Horsham Rural District Council.

Application was made to the Local Government Board for power to borrow £3,000, and the inquiry was held on July 11th, 1899, at the Workhouse, presided over by Mr. G. W. Willcocks, M.I.C.E., one of the Inspectors of the Local Government Board "for approval of the constitution of a special drainage district, and for sanction to borrow £3,000."

The case for the Rural Council was opened by Mr. Pollock. At the commencement he described the district, incidentally showing the difficulties to be overcome, and then he arrived at the reason why it was better for the district to keep apart from Horsham. The assessable value of the Horsham Urban District was, he said, £38,877. The district had a debt of £42,384, and the rates were 6s. 6d. in the £, exclusive of a water rate, compared with the rates of the Rural District, which were 3s. 8d. in the £, also exclusive of a water rate. The special sanitary district which was now asked for comprised 4,615 acres, the number of houses was 428, and, estimating the population at 4.92 persons per house, the population was 2,280 which figure included the 175 inmates in the Workhouse. The assessable value of the special district was £9,978. Mr. Pollock then explained, somewhat in detail, the scheme which had been submitted to the Local Government Board. The total cost was £3,029, and if the sum could be borrowed for 21 years, that would incur an annual expense of £263, inclusive of principal and interest, which could be raised by a rate of 6¼d. in the £ on the present assessable value of the special district. Counsel put in a petition signed by a large number of residents in favour of the special district being constituted, and which petition included the signature of Mr. R. H. Hurst, J.P., who is the largest landowner.

Mr. Muir spoke of the Inspector as being an arbitrator between the Rural and Urban Councils. The position was a remarkable one, because the County Council, who had been appealed to, and which was composed in the main of landowners, did not see their way to connect the district with the Horsham urban area, because, as a rule, landowners did not like to be included in urban areas, the reason for which was obvious. And then it wanted a very remarkable case for the Local Government Board to sanction a special sanitary area, and none of the special circumstances existed, he submitted, in that case. And then, he would submit, the Local Government Board would only refuse the special sanitary area where the district was so remote by reason of its geographical and physical features, and there did not exist a drainage system to which it could not by reasonable cost be joined to it; and the second circumstance would be that the Local Government Board would want that the whole of the district which was said to be ripe for a special drainage district, should benefit by the proposed scheme. Now he submitted that the only part of the district which wanted to be constituted a special sanitary area by the Rural District Council immediately adjoined an existing sewerage system, viz., at Horsham. The proposed new district was small in area, and contained 231 houses, and of these 25 were already connected with the urban system, and it was actually proposed by the promoters of the present scheme, to connect another 77 houses with the existing scheme, including the Workhouse, leaving only 30 houses to be dealt with. He proposed to show that by means of gravitation and with the exception of about 30 houses, the whole of the district could be drained into the existing scheme. As regarded the remaining 30 houses, they could be provided for at an annual cost of £46 by being connected by mains to a pumping station with the same system. As to Little Haven, that could be drained by the new invention, the vacuum cesspool cleanser, and the sewage carried without any nuisance at all, and disposed of at the Horsham town's works. The Urban Council were prepared to give the district light, water, and scavenging to within a penny in the £ of what they would pay under a special district, and he respectfully submitted that the only and proper mode of drainage was into the Horsham sewers.

#### AN ALTERNATIVE SCHEME.

In conclusion, counsel called Mr. Renwick, Surveyor to the Urban Council, who submitted a scheme by which the drainage of Star Row, Roffey, and Little Haven could be taken into the Horsham sewers. The total cost of this was £2,806, which included a pumping station for Little Haven.

In the end the Local Government Board reported against the scheme, and suggested the appointment of a skilled engineer to form a new plan.

I still think the best course to pursue would be for the whole of this rural district to be taken into the urban district of Horsham.

#### WATER SUPPLY.

IFIELD AND CRAWLEY.—A sample of water from the new boring was analysed in March, 1898, by Dr. Thos. Stevenson, with the following results.



“ The water was free from odour, and, when viewed in bulk, of a yellow colour and turbid.

It contained, and yielded, in grains per gallon :—

Total solid matters	..	..	..	..	31·64
Loss on ignition	..	..	..	..	0·56
Combined Chlorine	..	..	..	..	0·98
Equal to Common Salt	..	..	..	..	1·62
Nitrogen as Nitrates	..	..	..	..	0·05
Nitrites	..	..	..	..	none
Carbonate of Sodium	..	..	..	..	25·22
Ammonia	..	..	..	..	0·020
Albumenoid and Organic Ammonia	..	..	..	..	0·0025
Oxygen required to oxidise the organic matter					0·057
Hardness in degrees	..	..	..	..	0·5°

I am of opinion that this water is well fitted for domestic use. It is very soft and free from organic contamination. Like all water from fresh borings, the ammonia is rather high, but this is immaterial. The water is exceptional in this respect that it contains 25 grains of carbonate of sodium per gallon ; in this respect it resembles the waters from some Mid-Kent wells. I have not found the presence of this quantity of carbonate of sodium of any detriment, except that such waters act freely on ordinary compo-metal taps.”

A larger bore-hole is now being made ; iron mains are being laid down in the streets, and it is hoped that by June, 1900, a good public water supply will be provided.

## DRAINAGE AND SEWERAGE.

FIELD AND CRAWLEY SEWAGE FARM.—The yearly receipts and expenditure are here given for the last seven years :—

Year ending March 25th.	Receipts.			Expenditure.			Deficit.					
	£	s.	d.	£	s.	d.	£	s.	d.			
1892	..	Nil.	..	53	14	1	..	53	14	1		
1893	..	5	10	0	..	70	19	1	..	65	9	1
1894	..	14	0	0	..	62	11	4	..	48	11	4
1895	..	28	14	0	..	52	16	8	..	24	2	8
1896	..	13	6	0	..	53	6	7	..	40	0	7
1897	..	14	18	0	..	52	18	2	..	30	0	2
1898	..	14	10	0	..	52	13	8	..	38	3	8
1899	..	7	12	0	..	55	8	3	..	47	16	3

The sale of rye grass brought in £5 10s. for 1893, £12 in 1894, £23 5s. in 1895, £12 in 1896 and 1897, and £10 in 1898 ; the sale of sludge brought in £2 in 1894, £5 9s. in 1895, £1 6s. in 1896, £2 18s. in 1897, and £4 10s. in 1898. Only one man is employed on the farm ; the labour bill amounts to about £52 a year, besides which there are other expenses for constructing banks, laying out the ground, seeds, tools, &c., which vary from time to time.

The rye grass is sold by tender ; it is cut and removed at the expense of the farmer whose tender is accepted.

The following report is the usual annual one sent in by Mr. Moses Brooks to the Horsham Rural District Council :—

“I beg to lay before you my annual report and statement of accounts of the Crawley and Ifield Sewage Farm, for the year ending 25th March, 1899.

“I am pleased to state that during that time I have received no complaints whatever as to the condition of the effluent water on leaving the sewage farm.

“The sum received for the rye grass upon the farm during the past year was £7 ; owing to the late frost the grass is not so forward this year, but it will soon be ready, and I would suggest to the Council that printed bills be issued, inviting tenders for the same as on previous years.

“During the past year a large quantity of sludge has been taken from the tanks, but owing to the mild and wet winter, we have not been able to get it dry enough to take away ; only 12 loads have been sold this year, therefore there is a large quantity to be disposed as soon as it is dry enough and a purchaser can be found.”

“By constant care and attention, and frequent cleaning out the pits and passing the effluent over the land, I have been able to keep the effluent water from becoming a nuisance on leaving the farm, and to ensure that this has been properly attended to, I have made 80 visits to the farm during the year, and I would remind the Council that I think the time is not far distant when something more will have to be done with regard to filtering so as to keep pace with the fast increasing number of houses in the district.

“The following is a summary of the receipts and expenditure upon the farm during the year :—

RECEIPTS.				EXPENDITURE.			
	£	s.	d.		£	s.	d.
Sale of Rye Grass as				Labour for the year	54	18	5½
per tender ..	7	0	0	Tools, &c. ... ..	0	9	8½
12 loads of Sludge at							
1s. per load ..	0	12	0				
Excess of expenditure							
over receipts ..	47	16	3				
	<u>£55</u>	<u>8</u>	<u>3</u>		<u>£55</u>	<u>8</u>	<u>3</u>

### SYSTEMATIC INSPECTION.

The following is a list of routine work during the year, 1899, as recorded in the books of Mr. Brooks, the Sanitary Inspector :—

No. of Inspections made during the year...	..	1,794
No. of Nuisances, &c., reported .. ..	..	383



No. of Nuisances abated without notice .. ..	256
No. of Nuisances abated with notice .. ..	144
No. of Nuisances now in course of abatement ..	13
Houses reported unfit for habitation .. ..	3
Houses made fit for habitation .. ..	3
Houses closed by order of the Magistrates ..	0
Houses disinfected .. ..	65
Houses cleansed and limewashed .. ..	84
Water certificates granted for new houses ..	100
New wells dug .. ..	61
Wells cleaned out and deepened .. ..	8
Houses supplied from Horsham Waterworks ..	7
No. of samples of water analysed .. ..	18
No. of samples found polluted .. ..	1
Cases of overcrowding reported .. ..	8
Cases of overcrowding abated .. ..	8
New closets erected .. ..	7
New earth closets erected .. ..	54
Old closets converted into earth closets .. ..	7
Old closets provided with proper cesspits ..	2
No. of gully traps put in to replace bell traps ..	27
No. of houses connected with Crawley and Ifield main sewer .. ..	35
No. of houses connected with Horsham Urban Council's sewer .. ..	7
No. of houses connected with Warnham main sewer	7
New ventillating shafts erected .. ..	15
No. of Schools closed during the year .. ..	10

### PROCEEDINGS BEFORE THE MAGISTRATES.

On Saturday, March 25th, proceedings were taken before the Horsham Bench to abate a case of overcrowding at Southwater. An order was made to abate the nuisance in 14 days, and defendant had to pay 12s.

### NEW HOUSES ERECTED DURING 1899.

				Depth of Well.	Depth of Water.	
Ifield	..	..	Cottage	..	16ft.	12ft.
Billingshurst	..	..	Pair of Cottages	..	20ft.	13ft.
Slinfold	..	..	4 Cottages	..	36ft.	20ft.
Ifield	..	..	Pair of Cottages	..	15ft.	13ft.
Horsham	..	..	Pair of Cottages	..	Supplied from Horsham Waterworks.	
Shipley	..	..	Pair of Cottages	..	55ft.	50ft.
Lower Beeding	..	..	Pair of Cottages	..	54ft.	8ft.
West Grinstead	..	..	Pair of Cottages	..	20ft.	18ft.
Ifield	..	..	Pair of Cottages	..	14ft.	12ft.
Billingshurst	..	..	Pair of Cottages	..	27ft.	24ft.
Horsham	..	..	Pair of Cottages	..	30ft.	27ft.
Ifield	..	..	Pair of Cottages	..	12ft.	9ft.
Ifield	..	..	Pair of Cottages	..	11ft.	8ft.
West Grinstead	..	..	Pair of Cottages	..	22ft.	13ft.



				Depth of Well.	Depth of Water.
Ifield	..	..	Villa ..	.. 27ft.	16ft.
Ifield	..	..	Villa ..	.. 32ft.	8ft.
and Rain Water Tank, 2,000 gallons.					
Horsham	..	..	Cottage ..	.. 22ft.	16ft.
Lower Beeding	..	..	Villa ..	.. 44ft.	8ft.
Crawley	..	..	4 Cottages ..	.. 33ft.	20ft.
Horsham	..	..	Pair of Cottages	.. 31ft.	27ft.
Billingshurst	..	..	Cottage and Office	.. 20ft.	13ft.
Ifield	..	..	Villa ..	.. 24ft.	10ft.
Ifield	..	..	Pair of Villas	.. 26ft.	14ft.
Ifield	..	..	Pair of Cottages	.. 15ft.	10ft.
Rudgwick	..	..	Pair of Cottages	.. 43ft.	4ft.
Rain Water Tank, 2,000 gallons.					
Itchingfield	..	..	Pair of Cottages	.. 20ft.	10ft.
Billingshurst	..	..	Pair of Cottages	.. 26ft.	20ft.
Slinfold	..	..	3 Cottages ..	.. 32ft.	13ft.
Billingshurst	..	..	Villa ..	.. 70ft.	4ft.
and Rain Water Tank.					
Horsham	..	..	Cottage ..	.. 14ft.	8ft.
Ifield	..	..	Pair of Cottages	.. 13ft.	8ft.
Ifield	..	..	Pair of Cottages	.. 12ft.	6ft.
Horsham	..	..	Pair of Cottages	.. Supplied from Horsham	Waterworks.
Horsham	..	..	Cottage ..	.. Supplied from Horsham	Waterworks.
Billingshurst	..	..	3 Cottages ..	.. 52ft.	40ft.
West Grinstead	..	..	Villa ..	.. 30ft.	20ft.
Slinfold	..	..	Cottage ..	.. 14ft.	8½ft.
Slinfold	..	..	Cottage ..	.. 15ft.	7ft.
Warnham	..	..	3 Cottages ..	.. 23ft.	12ft.
Warnham	..	..	Pair of Cottages	.. 23ft.	11ft.
Rudgwick	..	..	Pair of Cottages	.. 24ft.	12ft.
Rusper	..	..	Cottage ..	.. 31ft.	8ft.
Itchingfield	..	..	Cottages ..	.. 14ft.	6ft.
Ifield	..	..	Pair of Cottages	.. 13ft.	6ft.
West Grinstead	..	..	Pair of Cottages	.. 15ft.	7ft.
Ifield	..	..	3 Cottages ..	.. 28ft.	13ft.
Horsham	..	..	Villa ..	.. 28ft.	12ft.
Rain Water Tank, 3,000 gallons.					
Horsham	..	..	3 Cottages ..	.. 27ft.	12ft.
Rudgwick	..	..	Pair of Cottages	.. 24ft.	22ft.
Ifield	..	..	House and Shop	.. 23ft.	6ft.
Itchingfield	..	..	Cottage ..	.. 14ft.	7ft.
Horsham	..	..	Pair of Cottages	.. Supplied from Horsham	Waterworks.
Ifield	..	..	Cottage ..	.. 13ft.	10ft.
Lower Beeding	..	..	Pair of Cottages	.. 44ft.	13ft.
Ifield	..	..	Pair of Cottages	.. 17ft.	12ft.

### MAIN SEWER EXTENSIONS.

During the year the main sewer at Ifield has been extended, viz. :—  
390ft. of 9in. sewer along the Ifield Road. At the end a standard ventilating column has been erected so as to properly ventilate the

sewer. Also the main sewer at Warnham has been extended, viz. :— 487ft. of 9in. sewer has been put in on the Horsham Road. This was done chiefly to enable proper sanitary arrangements to be carried out at the Oak, and part of the costs was paid by Mr. H. Mitchell, the owner.

### COWSHEDS AND DAIRIES.

There are 63 registered cowsheds and dairies, with 381 cows. These are frequently inspected ; they are well kept, and regularly lime-washed.

### BAKEHOUSES.

These are 38 in number. They have been frequently inspected, and are well kept. Each bakehouse is limewashed twice a year.

### SLAUGHTER-HOUSES.

There are 24 slaughter-houses in the district. They are well kept, and are frequently limewashed. They are often inspected to see that no nuisance arises.

### RAINFALL.

This table showing the rainfall in each month has been kindly sent to me by H. Padwick, Esq., M.A., Manor House, Horsham, who has made similar observations for many years :—

	1896.		1897.		1898.		1899.	
	Fall in inches.		Fall in inches.		Fall in inches.		Fall in inches.	No. of Rainy days.
January ..	1·07	..	2·65	..	0·59	..	3·27	.. 16
February	0·45	..	4·12	..	1·57	..	3·12	.. 4
March ..	3·49	..	5·34	..	1·44	..	0·83	.. 4
April ..	0·41	..	2·61	..	1·17	..	3·27	.. 18
May ..	0·35	..	1·04	..	3·92	..	1·69	.. 11
June ..	3·05	..	1·84	..	1·30	..	0·84	.. 5
July ..	1·81	..	2·43	..	1·28	..	1·99	.. 7
August ..	2·42	..	3·35	..	1·55	..	0·42	.. 5
September	7·41	..	2·73	..	1·03	..	3·15	.. 11
October ..	4·77	..	0·86	..	4·69	..	2·43	.. 9
November	1·95	..	1·62	..	5·86	..	5·67	.. 7
December	5·83	..	4·36	..	3·54	..	1·99	.. 15
	33·01		32·95		27·94		28 67	119

Year.					Fall in inches.	No. of Rainy days.
1899	..	..	..	..	28·67	119
1898	..	..	..	..	27·94	145
1897	..	..	..	..	32·95	159
1896	..	..	..	..	33·01	153
1895	..	..	..	..	31·36	153
1894	..	..	..	..	42·18	189
1893	..	..	..	..	25·06	156
1892	..	..	..	..	27·53	161
1891	..	..	..	..	34·84	178
1890	..	..	..	..	25·87	143
Mean					30·94	156

Diameter of funnel, 8 inches ; above sea level, 140 feet.

### INQUESTS.

Inquests were held in fourteen cases :—Male, 19 years, fractured skull from an accidental fall from scaffolding 6ft. 3in. high ; male, 10 years, acute congestion of brain and pneumonia ; male, 6 months, pneumonia ; male, 44 years, pneumonia, accelerated by fatty degeneration of the heart ; male, 72 years, sudden failure of the heart ; female, 73 years, fatty degeneration of the heart ; female, 61 years, fatty degeneration of the heart ; female, 49 years, inflammation of the lungs ; male, 4 months, convulsions ; male, 43 years, accidental fall from a carriage ; male, 23 years, suicide by throwing himself in front of a train ; male, 62 years, suicide by hanging ; male, 57 years, accidental fall from a tree ; female, 41 years, consumption accelerated by want of sufficient nourishment.

There were four deaths returned as “ not certified ” during the year :—male, 54 years, cancer of face ; male, 43 years, rupture of blood vessel ; female, 3 months, convulsions ; female, 89 years, cardiac failure.



## HORSHAM RURAL DISTRICT.

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TABLE 1.—Showing the Deaths at various groups of ages in the fifteen years, 1881-95 and in 1896-99.

Period.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1881-85 ...	1,042	189	93	57	55	318	330
1886-90 ...	1,142	223	110	76	60	280	393
1891-95 ...	1,235	197	102	70	63	346	457
Per 1,000 ...	1,000	178	89	60	52	276	345
1896... ..	214	45	14	11	9	56	79
1897... ..	232	39	18	10	11	79	75
1898... ..	248	38	10	5	9	79	107
1899... ..	258	39	24	8	12	72	103

## HORSHAM RURAL DISTRICT.

TABLE 2.—Showing the Deaths from various causes in the twenty years, 1876-95, and in 1896-99.

Period.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1876-80 ...	1	9	9	—	—	9	3	—	3	—	—	17	23	19	1	—	94
1881-85 ..	—	4	29	—	1	3	3	—	4	—	6	5	20	16	4	—	95
1886-90 ...	1	9	11	—	1	3	2	—	—	—	2	27	28	21	2	3	110
1891-95 ...	5	3	20	1	—	5	—	—	1	—	4	10	13	8	2	41	113
1896 ...	—	—	5	—	—	3	—	—	—	—	—	1	6	1	1	3	20
1897 ...	—	—	7	—	—	1	—	—	—	—	—	1	6	5	1	2	23
1898 ...	—	—	2	—	—	1	—	—	—	—	—	—	1	7	1	7	19
1899 ...	—	—	3	—	—	—	—	—	—	—	—	—	7	6	2	7	25
Total ...	7	25	86	1	2	25	8	—	8	—	12	61	104	83	14	63	499

## HORSHAM RURAL DISTRICT.

TABLE 3.—Showing the Death-rate per 100,000 persons living from all causes, and from various causes, in different localities, during the twenty years, 1876-95, and the Death-rate in 1896-99.

LOCALITY.	All Diseases.	Notifiable.	Non-notifiable.	Phthisis.	Lung Disease.	Heart Disease.
South Sub-District ..	1,431	60	65	122	227	115
Ifield Parish .. ..	1,298	58	72	101	215	138
Rest of North S.D. ..	1,341	31	71	131	286	103
West Sub-District ..	1,499	49	60	164	250	146
Mean .. ..	1,394	48	68	132	251	122
PERIOD.						
1876-80 .. .. .	1,418	46	81	163	274	110
1881-85 .. .. .	1,329	64	57	123	233	100
1886-90 .. .. .	1,399	36	95	148	225	127
1891-95 .. .. .	1,430	45	39	96	274	151
1896 .. .. .	1,140	43	48	69	154	186
1897 .. .. .	1,218	42	68	115	147	147
1898 .. .. .	1,278	15	47	151	140	202
1899 .. .. .	1,325	15	77	108	180	200



(A)—Table of DEATHS during the Year 1899, in the HORSHAM

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and up-wards. (h)		Small Pox. (j)	Scarlatina. (k)
South Sub-District ... ..	51	6	7	4	2	13	19	Under 5 ..... 5 upwards.		
Ifield Parish ... ..	38	6	3	—	3	13	13	Under 5 ..... 5 upwards.		
Rest of North Sub-District ...	84	13	6	2	5	26	32	Under 5 ..... 5 upwards.		
West Sub-District ... ..	56	12	8	2	1	11	22	Under 5 ..... 5 upwards.		
Cowfold Parish ... ..	10	2	—	—	—	6	2	Under 5 ..... 5 upwards.		
Horsham Workhouse .. ...	28	—	—	—	—	7	21	Under 5 ..... 5 upwards.		
Ifield Cottage Hospital ...	—	—	—	—	—	—	—	Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
TOTALS.....	267	39	24	8	11	76	109	Under 5 ..... 5 upwards.		
The subjoined numbers have also to be taken										
Deaths occurring outside the District among persons belonging thereto.....	1				1			Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...	10	—	—	—	—	4	6	Under 5 ..... 5 upwards.		

RURAL DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

Group.	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	FEVERS.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Influenza.	Injuries.	All Other Diseases.	TOTAL.
	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.													
									3				3				6	13
												1	5	8	2	1	19	38
													2		—		7	9
												3	2	15	—		9	29
										3			3		1		12	19
										1		9	10	12	2	4	27	65
									4	2			2				12	20
											1	5	6	3	1		20	36
													1				1	2
												2	1	—	1		4	8
																	—	—
												3		4			21	28
																	—	—
																	—	—
									7	5			11		1		38	63
										1	1	23	24	42	6	5	100	204

ount in judging of the above records of mortality.

[illegible]



## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the HORSHAM

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICK COMING TO THE KNOWLEDGE OF										
	Last Census	Esti- mated tomid- dle of 1899.			1	2	3	4	5		6				
									Small Pox.	Scarlatina.		Diphtheria.	Membranous Croup.	FEVERS.	
														Typhus.	Enteric or Typhoid.
(a)	(b)	(c)	(d)	(e)											
South Sub-District ... ..	4,051	4,250	70	Under 5 5 upwards.		1 12	5 21								
Ifield Parish ... ..	2,817	3,295	64	Under 5 5 upwards.		9	7			2					
Rest of North Sub-District ...	5,568	6,420	150	Under 5 5 upwards.		2 21		12		1					
West Sub-District ... ..	4,180	4,400	109	Under 5 5 upwards.		9	2 6								
Cowfold Parish... ..	—	920	16	Under 5 5 upwards.		1 6		1							
Horsham Workhouse ... ..	182	180	—	Under 5 5 upwards.											
Ifield Cottage Hospital ..	—	5	—	Under 5 5 upwards.											
				Under 5 5 upwards.											
				Under 5 5 upwards.											
				Under 5 5 upwards.											
				Under 5 5 upwards.											
				Under 5 5 upwards.											
TOTALS .....	16,798	19,470	409	Under 5 5 upwards.		4 57	7 47								



INFECTIOUS SICKNESS, coming to the knowledge of the Medical  
District; classified according to DISEASES, AGES, and LOCALITIES

[illegible]

# PETWORTH RURAL DISTRICT.

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pp. 57 et seq.

## PETWORTH RURAL DISTRICT.

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The population in this registration district was 9,680 at the census of 1841 and 9,629 in 1851; chiefly owing to changes in the area, it rose to 10,065 in 1861, but since 1871 there has been a steady decline.

The following figures relate to the present rural sanitary area, which is co-extensive with the registration district :—

	1861.	1871.	1881.	1891.
Area in Statute Acres ..	—	44,747	45,701	45,738
Number of Inhabited Houses..	1,970	2,010	1,995	2,000
„ Uninhabited „	72	64	120	119
Population .. .. .	10,065	10,147	9,594	9,431
Males .. .. .	5,213	5,296	4,857	4,711
Females .. .. .	4,852	4,851	4,737	4,720
Persons to a House .. ..	5.11	5.05	5.81	4.71

The following table gives the usual information as to the incidence of various diseases in each parish in this district.

In Table 3 the death-rates for various groups of diseases are given for Petworth Parish and for each Sub-District.

The mean general death-rate for the whole district is 15.7 per 1,000 in the twenty years 1876-95, and there has been a gradual reduction in the rate from 16.09 in the first five, to 15.19 in the last five-year period.

All deaths in Petworth and Wisborough Green Workhouses have been distributed each year to each parish whence the inmate came. The mortality is fairly uniform throughout the whole area, but lung disease is more common in the northern parishes which form a cold and wet clay area.



Table showing the Deaths from various causes in each Parish in the twenty-four years, 1876-99.

PARISH.	Notifiable.							Non-notifiable.				Phthisis.	Lung Disease.	Heart Disease.	All Diseases.		
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.				Measles.	Whooping Cough.	Diarrhoea.					Rheumatic Fever.	
					Typhus.	Enteric.	Continued.	Puerperal.									Erysipelas.
Wisborough Green	—	—	9	—	—	3	—	—	1	3	4	2	—	52	102	60	601
Northchapel	—	—	10	—	—	—	—	—	2	—	3	—	—	36	54	31	321
Kirdford	—	—	16	—	—	3	—	2	—	1	5	1	—	46	112	40	575
Petworth	1	7	12	—	—	10	—	2	5	7	22	10	2	106	162	103	1106
Egdean	—	—	1	—	—	1	—	—	—	—	—	1	—	—	3	2	25
Fittleworth	—	—	6	1	—	—	—	—	—	1	1	3	3	23	48	42	284
Stopham	—	—	2	—	—	—	—	—	—	—	—	—	—	3	8	3	45
Coates ..	—	—	—	—	—	3	—	—	—	—	—	—	1	1	3	1	25
Burton	—	—	—	—	—	—	—	—	—	—	—	—	—	3	4	4	28
Duncton	—	—	—	—	—	—	—	—	—	—	—	—	—	6	18	12	73
Barlavington	—	—	—	—	—	—	—	—	—	2	2	1	—	2	7	4	41
Sutton	1	—	2	—	—	—	—	—	—	—	—	—	—	8	18	17	115
Bignor	—	—	2	—	—	—	—	—	—	—	2	—	—	5	4	10	57
Bury ..	—	2	9	—	—	—	—	—	—	—	4	2	—	10	28	28	206
Total ..	2	9	69	1	—	20	—	4	8	14	43	21	6	301	571	357	3502

## BIRTHS AND BIRTH-RATE

During the year 1899, the births of 194 children were registered; of these 110 were male, and 84 were female.

Estimating the population in the middle of the year at 9,340, the birth-rate was equal to 20·8 per 1,000 persons living.

The births and birth-rate during the past ten years were thus registered :—

Year.	Births.	Birth-rate.	Year.	Births.	Birth-rate.
1890 ..	223 ..	23·5	1895 ..	202 ..	21·5
1891 ..	251 ..	26·6	1896 ..	244 ..	26·0
1892 ..	214 ..	22·7	1897 ..	203 ..	21·7
1893 ..	251 ..	26·7	1898 ..	220 ..	23·5
1894 ..	227 ..	24·1	1899 ..	194 ..	20·8

The mean number of births is 223, and the mean birth-rate is 23·7 per 1,000 of population.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

The following table shows the births and birth-rate in each locality during three periods :—

	Birth-rate.		Births.		Birth-rate.	
	1876-84.	1893-97.	1898.	1899.	1898.	1899.
North Sub-District..	29·2	25·3	99	85	25·2	21·6
Petworth Parish ..	29·2	22·5	60	60	21·4	21·4
Rest of South S.D...	29·2	23·6	61	49	23·5	18·8
Mean ..	29·2	24·0	220	194	23·5	20·8

## GENERAL MORTALITY.

There were 105 deaths registered in this district during the year 1899; of these 6 took place in Petworth Workhouse, 3 in Wisborough Green Workhouse, and none in Petworth Cottage Hospital. These deaths have been distributed among the several parishes whence each inmate came, viz., Wisborough Greer 1, Kirdford 2, Petworth 2, Egdean 1, Duncton 1, and Bury 2.

Estimating the population in the middle of the year at 9,340, the death-rate was equal to 11·2 per 1,000 persons living.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

The variations in the death-rate during the past ten years in this district are here given :—

Year.	Deaths.	Death-rate.	Year.	Deaths.	Death-rate.
1890 ..	136 ..	14·3	1895 ..	154 ..	16·4
1891 ..	153 ..	16·2	1896 ..	129 ..	13·7
1892 ..	163 ..	17·3	1897 ..	113 ..	12·1
1893 ..	129 ..	13·7	1898 ..	152 ..	16·3
1894 ..	116 ..	12·3	1899 ..	105 ..	11·2

Thus there have been during the above period 1,350 deaths and a mean mortality of 14·3 per 1,000. During the same period there were 2,229 births, so that the natural increase of population by excess of births over deaths was 879.

In each locality the deaths and death-rate are here shown for the past four years :—

	Deaths.				Death-rate.			
	1896.	1897.	1898.	1899.	1896.	1897.	1898.	1899.
North Sub-District ..	60	59	66	51	15·2	15·0	16·8	13·0
Petworth Parish ..	37	26	35	29	13·0	9·3	12·5	10·3
Rest of North S.D. ...	32	28	51	25	12·3	10·8	19·6	9·6
Total ..	129	113	152	105	13·7	12·1	16·3	11·2

In each parish the deaths in 1899 were thus distributed :—

Wisborough Green ..	22 ..	Coates ..	1
Northchapel ..	14 ..	Burton ..	none
Kirdford ..	15 ..	Duncton ..	4
Petworth ..	29 ..	Barlavington ..	none
Egdean ..	2 ..	Sutton ..	3
Fittleworth ..	4 ..	Bignor ..	1
Stopham ..	1 ..	Bury ..	9
Total ..	105		

### INFANT MORTALITY.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under one year.	Ratio to 1,000 Births.	Ratio 1898.
North Sub-District ..	85	16	188	81
Petworth Parish ..	60	6	100	117
Rest of South Sub-District	49	2	143	115
Total ..	194	24	124	100

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000 during the past year, the mean proportion in the preceding ten years having been 151.



## ZYMOTIC MORTALITY.

There were no deaths from zymotic diseases in the case of those which are notifiable, and one in the other class where the number of cases cannot be obtained. The rate of mortality was therefore equal to 0·11 per 1,000.

				Cases.	Deaths.
	Small Pox	..	..	..	none
	Scarlatina	..	..	..	5
	Diphtheria	..	..	..	8
	Membranous Croup		..	..	none
Fevers.	Typhus	..	..	..	none
	Enteric	..	..	..	2
	Continued	..	..	..	none
	Relapsing	..	..	..	none
	Puerperal	..	..	..	1
	Cholera	..	..	..	none
	Erysipelas	..	..	..	2
	Total	..	..	18	none

In the other class the deaths were thus recorded :—

				Deaths.
	Measles	..	..	..
	Whooping Cough	..	..	1
	Diarrhœa and Dysentery	..	..	none
	Rheumatic Fever	..	..	none
	Total	..	..	1

The Infectious Diseases (Notification) Act, 1889, came into operation in this district on February 2nd, 1891.

The Infectious Disease (Prevention) Act, 1890, came into operation in this district in 1891.

There were 44 cases notified in 1891; 49 in 1892; 60 in 1893; 53 in 1894; 37 in 1895; 30 in 1896; 32 in 1897; and 26 in 1898.

The prevalence in each quarter of 1899 and in 1897-98 of each notifiable disease is shown in the following table :—

		1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox	..	—	—	—	—	—	—	—
Scarlatina	..	—	3	—	2	5	6	5
Diphtheria	..	5	—	1	2	8	15	19
Membranous Croup		—	—	—	—	—	1	—
Enteric Fever	..	—	—	1	1	2	—	5
Continued Fever	..	—	—	—	—	—	—	—
Puerperal Fever	..	1	—	—	—	1	2	—
Erysipelas	..	—	—	1	1	2	2	3
Total	..	6	3	3	6	18	26	32

## WATER SUPPLY.

PETWORTH.—A sample of the water was sent on December 29th to Dr. Otto Hehner who, after analysis, sent the following report :—

100,000 parts of the water were found to contain

Chlorine	..	..	..	..	..	2.20
Sulphuric Acid	..	..	..	..	..	1.16
Nitric Acid	..	..	..	..	..	2.70
Phosphoric Acid	..	..	..	..	..	trace
Free Ammonia	..	..	..	..	..	0.0015
Albuminoid Ammonia	..	..	..	..	..	0.0027
Oxygen absorbed from Permanganate in 15 min.						0.0088
Ditto in four hours, both at 80° F. . .					..	0.0208
Total solids, dried at 212° F. . .	..	..	..	..	..	20.00
Loss of ignition	..	..	..	..	..	2.56
Total hardness	..	..	..	..	..	8.8
Colour in two-foot tube	..	.	..	..	..	bluish

The above results agree most closely with those obtained in 1897, and set forth in my report dated November 29th, 1897, but at the present time the water is considerably softer than on that occasion.

Organically the water is of great purity and there are no indications whatever of organic contamination. The amount of mineral matter in solution is quite moderate and the hardness small.

The quality of the supply is perfectly satisfactory.

BYWORTH.—During the year about twenty Cottages, the School, two Farm Houses and Outbuildings in the village of Byworth, the property of Lord Leconfield, have been provided with a water supply by him. The water is derived from a natural spring in the village, 5ft. below the surface, whence it runs through 3 inch iron pipes at the rate of 17,000 gallons per 24 hours, to a ram, a fall of thirty-two feet, which forces it at the rate of 4,000 gallons per 24 hours, into a reservoir containing about 1,600 gallons, at an elevation of about 110 feet above ram, and 50 feet above the village street. The water there flows by gravitation to the village through 1½ inch iron pipes. The cottages are supplied from two stand pipes, fitted with self closing taps placed in the village street, each cottage being supplied with a key. The pipes used are coated with Dr. Angus Smith's Solution. The water has been analysed by Dr. Voelcker, and found to be very satisfactory.

FITTLEWORTH.—At the request of the Parish Council a house to house inspection of the village was made, and a report sent in to the Rural District Council on May 16th.

Many minor nuisances were remedied, and improvements were made in the water supply.

## SYSTEMATIC INSPECTION.

The following is the Report of the Inspector of Nuisances, Mr. Suter, for the year ended December 31st, 1899 :—

No. of Premises visited	..	..	..	306
No. of Nuisances reported	..	..	..	114
No. of Nuisances abated without notice	..	..	..	74
No. of Nuisances abated with notice	..	..	..	40
No. of Houses disinfected and limewashed	..	..	..	15
No. of New Closets erected	..	..	..	7
No. of Old Closets converted	..	..	..	10
No. of New Wells sunk	..	..	..	8
No. of Samples of Water analysed	..	..	..	28
No. of Water Certificates granted	..	..	..	7
No. of Water Certificates refused	..	..	..	1
No. of New Houses built	..	..	..	11
No. of New Houses building	..	..	..	3
No. Cases of Overcrowding reported	..	..	..	2
No. of Cases Removed to Isolation Hospital	..	..	..	1

## BAKEHOUSES.

The Bakehouses are well kept, and are regularly limewashed ; two have been closed during the year. In no case is there any drain within the building.

## SLAUGHTER HOUSES.

These are nine in number, and are well kept.

## COMMON LODGING HOUSE.

There is one Common Lodging-House in the district, which is well kept.

## PROCEEDINGS BEFORE THE MAGISTRATES.

Proceedings were taken in two cases against persons for infringement of the By-Laws relating to tents, vans, and sheds. Convictions were obtained, and penalties inflicted in both cases.

Proceedings were also taken against the owner of four new houses at Loxwood, for allowing the same to be occupied without his first having obtained a water certificate. The summons was dismissed, upon the owner paying costs, and giving an undertaking to provide a sufficient supply of wholesome water, and apply for a certificate within a reasonable time.



## DAIRIES AND COWSHEDS.

New regulations were made by the Rural District Council with respect to Dairies, Cowsheds, and Milkshops, which now will take the place of the old regulations framed on April 12th, 1887.

## BY-LAWS.

By-Laws were made on December 13th, 1898, with respect to tents, vans, sheds, and similar structures used for human habitation; they were allowed by the Local Government Board, February 2nd, 1899.

## INQUESTS.

Inquests were held in nine cases:—Male, 1 month, inanition due to injudicious feeding; female, 62 years, suicide by drowning; female, 2 years, lung disease; male, 4 months, congenital malformation of the heart; female, 2 years, accidentally burnt; male, 34 years, suicide by drowning; female, 3 years, accidentally burnt; male, 77 years, congestion of brain and failure of the heart; female, 18 years, congestion of the lungs.

There were no deaths returned as “non-certified” during the year.

# PETWORTH RURAL DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the fifteen years, 1881-95 and in 1896-99.

Period.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1881-85 ...	749	109	57	34	39	222	288
1886-90 ...	754	102	47	32	39	226	308
1891-95 ...	715	102	46	33	25	205	304
Per 1,000 ...	1,000	141	68	45	46	294	406
1896... ...	129	23	6	7	7	33	53
1897... ...	113	16	5	2	8	30	52
1898... ...	152	22	7	4	6	46	67
1899... ...	105	24	2	3	2	33	41

# PETWORTH RURAL DISTRICT.

TABLE 2.—Showing the Deaths from various causes in the twenty years, 1876-95, and in 1896-99.

Period.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1876-80 ...	1	6	25	—	—	6	—	—	4	—	—	4	8	6	3	—	63
1881-85 ..	—	1	10	—	—	5	—	—	—	—	4	—	7	6	1	—	34
1886-90 ...	—	2	14	—	—	7	—	—	—	—	2	4	8	6	—	—	43
1891-95 ...	1	—	14	—	—	2	—	—	—	—	—	2	16	2	1	34	72
1896 ...	—	—	3	—	—	—	—	—	—	—	—	2	3	—	1	—	9
1897 ...	—	—	2	—	—	—	—	—	—	—	2	—	—	—	—	—	4
1898 ...	—	—	1	1	—	—	—	—	—	—	—	2	—	1	—	2	7
1899 ...	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	3	4
Total ...	2	9	69	1	—	20	—	—	4	—	8	14	43	21	6	39	236



## PETWORTH RURAL DISTRICT.

TABLE 3.—Showing the Death-rate per 100,000 persons living from all causes, and from various causes, in different localities, during the twenty years, 1876-95, and the Death-rate in 1896-99.

LOCALITY.	All Diseases.	Notifiable.	Non-notifiable.	Phthisis.	Lung Disease.	Heart Disease.
North Sub-District ..	1,538	50	20	143	296	121
Petworth Parish ..	1,688	60	67	167	286	157
Rest of South S D. ..	1,526	56	38	108	230	204
Mean .. ..	1,570	54	39	139	263	153
PERIOD.						
1876-80 .. ..	1,609	86	43	155	283	110
1881-85 .. ..	1,568	42	29	144	264	159
1886-90 .. ..	1,584	52	38	146	245	174
1891-95 .. ..	1,519	36	45	113	261	168
1896 .. ..	1,375	32	64	106	149	318
1897 .. ..	1,210	43	—	118	171	128
1898 .. ..	1,627	21	32	53	214	150
1899 .. ..	1,124	—	11	75	182	96

(A)—Table of DEATHS during the Year 1899, in the PETWORTH

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and up-wards. (h)		Small Pox. (i)	Scarlatina. (j)
North Sub-District ... ..	48	16	2	2	1	11	16	Under 5 ..... 5 upwards.		
Petworth Parish ... ..	27	6	—	—	—	10	11	Under 5 ..... 5 upwards.		
Rest of South Sub-District ...	21	2	—	1	1	10	7	Under 5 ..... 5 upwards.		
Petworth Workhouse ... ..	6	—	—	—	—	2	4	Under 5 ..... 5 upwards.		
Wisborough Green Workhouse	3	—	—	—	—	—	3	Under 5 ..... 5 upwards.		
Petworth Cottage Hospital ...	—	—	—	—	—	—	—	Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
TOTALS.....	105	24	2	3	2	33	41	Under 5 ..... 5 upwards.		

The subjoined numbers have also to be taken

Deaths occurring outside the District among persons belonging thereto.....							Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...							Under 5 ..... 5 upwards.		

AL DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

TALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

[illegible]

nt in judging of the above records of mortality.

[illegible]



## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the PETWORTH

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS COMING TO THE KNOWLEDGE OF THE OFFICER OF HEALTH.					
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5	6
(a)	(b)	(c)	(d)	(e)	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.
North Sub-District ... ..	3,983	3,900	85	Under 5 ..... 5 upwards.		3	1			
Petworth Parish ... ..	2,831	2,765	60	Under 5 ..... 5 upwards.		1	1			
Rest of South Sub-District ...	2,545	2,600	49	Under 5 ..... 5 upwards.		1	5			
Petworth Workhouse ... ..	33	35	—	Under 5 ..... 5 upwards.						
Wisborough Green Workhouse	36	35	—	Under 5 ..... 5 upwards.						
Petworth Cottage Hospital ..	3	5	—	Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
TOTALS .....	9,431	9,340	194	Under 5 ..... 5 upwards.		1 4	1 7			

l District; classified according to DISEASES, AGES, and LOCALITIES

[illegible]

# THAKEHAM RURAL DISTRICT.

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pp. 73 et seq.



## THAKEHAM RURAL DISTRICT.

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The population in this registration district was 7,577 at the census of 1841 and 7,434 in 1851; chiefly owing to alterations in area, it rose to 8,036 in 1861, but since 1871 there has been a steady decline in the number living.

The following figures relate to the present rural sanitary area, which is co-extensive with the registration district:—

	1861.	1871.	1881.	1891.
Area in Statute Acres ..	—	40,025	40,636	40,636
Number of Inhabited Houses..	1,590	1,689	1,652	1,610
„ Uninhabited „	64	79	131	113
Population .. ..	8,036	8,335	8,285	8,049
Males .. ..	4,121	4,274	4,247	4,194
Females .. ..	3,915	4,061	4,038	3,855
Persons to a House .. ..	5·05	4·93	5·01	5·00

The following table gives the usual information as to the incidence of various diseases in each parish in this district.

In Table 3 the death-rates for various groups of diseases are given for the chief Parishes and for each Sub-District.

The mean general death-rate for the whole district is 14·98 per 1,000 in the twenty years 1876-95, and there has been a gradual reduction in the rate from 15·63 in the first five, to 13·89 in the third five-year period, but since then there has been a rise.

In 1896 and also in 1897-99, the rate of mortality was unusually low.

All deaths in Thakeham Workhouse have been distributed each year to each parish whence the inmate came.

Table showing the Deaths from various causes in each Parish in the twenty-four years, 1876-99.

PARISH.	Notifiable.							Non-notifiable.				Phthisis.	Lung Disease.	Heart Disease.	All Diseases.
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.				Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.			
North Stoke ..	—	—	—	—	—	—	—	—	—	2	—	—	6	3	34
Amberley ..	—	4	1	1	—	1	—	—	3	5	5	2	14	16	228
Rackham ..	—	—	—	—	—	—	—	—	—	3	1	—	4	9	70
Greatham ..	—	—	2	—	—	—	—	—	—	—	—	—	—	2	16
Hardham ..	—	—	1	—	—	—	—	—	—	1	—	1	1	4	38
Cold Waltham ..	—	—	1	1	—	1	—	—	—	6	2	—	21	22	176
Wiggonholt ..	—	—	—	—	—	1	—	—	—	1	—	—	1	—	10
Pulborough ..	—	7	17	—	—	6	—	—	3	12	6	3	60	74	674
West Chiltington ..	—	—	8	—	—	1	—	—	1	8	4	—	22	28	238
Parham ..	—	—	—	—	—	—	—	—	—	1	—	—	2	4	23
Storrington ..	—	3	8	—	—	5	—	—	2	10	4	—	46	42	463
Sullington ..	—	2	—	—	—	—	—	—	—	3	1	—	2	5	46
Thakeham ..	—	1	—	—	—	1	—	—	1	4	2	—	11	14	148
Warminghurst ..	—	3	—	—	—	—	—	—	—	1	2	—	1	3	33
Ashington ..	—	—	—	—	—	—	—	—	—	3	3	—	10	8	92
Wiston ..	—	1	1	—	—	—	—	—	—	4	—	—	8	11	90
Washington ..	—	1	14	—	—	4	—	—	—	10	—	—	16	24	283
Findon.. ..	—	3	7	1	—	2	—	—	1	6	3	—	32	23	215
Total ..	1	25	60	3	2	24	—	6	12	80	37	6	249	292	2877

## BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 185 children were registered; of these 101 were male, and 84 were female.

Estimating the population in the middle of the year at 8,000, the birth-rate was equal to 23·1 per 1,000 persons living.

The births and birth-rate during the past ten years were thus recorded :—

Year.	Births.	Birth-rate.	Year.	Births.	Birth-rate.
1890 ..	210	25·9	1895 ..	197	24·6
1891 ..	223	27·7	1896 ..	185	23·1
1892 ..	185	23·0	1897 ..	172	21·5
1893 ..	207	25·9	1898 ..	184	23·0
1894 ..	188	23·5	1899 ..	185	23·1

The mean number of births is 193, and the mean birth-rate is 24·1 per 1,000 of population.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

The following table shows the births and birth-rate in each locality during three periods :—

		Birth-rate.		Births.		Birth-rate.	
		1877-84.	1893-97.	1898.	1899.	1898.	1899.
Amberley Parish	..	—	—	11	19	21·1	36·5
Pulborough Parish	..	32·6	24·8	44	48	24·4	26·7
Rest of Pulborough S.D...		29·7	27·1	36	39	25·5	27·7
Storrington Parish	..	28·7	21·1	26	16	20·6	12·7
Washington Parish	..	—	—	23	16	27·0	18·8
Rest of Washington S.D.		31·7	20·9	44	47	20·4	21·8
Mean	..	30·9	23·7	184	185	23·0	23·1

## GENERAL MORTALITY.

There were 107 deaths registered in this district during the year 1899.

Estimating the population in the middle of the year at 8,000, the death-rate was equal to 13·4 per 1,000 persons living.

In country places throughout England and Wales the mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.



There were 15 deaths in Thakeham Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., Amberley 2, Hardham 1, Pulborough 5, West Chiltington 2, Storrington 1, Warminghurst 1, Washington 2, and Findon 1.

The variations in the death-rate during the past ten years were thus recorded :—

Year.	Deaths.	Death-rate.	Year.	Deaths.	Death-rate.
1890 ..	101 ..	12·4	1895 ..	124 ..	15·5
1891 ..	126 ..	15·6	1896 ..	99 ..	12·4
1892 ..	146 ..	18·2	1897 ..	99 ..	12·4
1893 ..	121 ..	15·1	1898 ..	110 ..	13·7
1894 ..	136 ..	17·0	1899 ..	107 ..	13·4

Thus there have been during the above period 1,169 deaths and a mean mortality of 14·6 per 1,000. During the same period there were 1,936 births, so that the natural increase of population by excess of births over deaths was 767.

In each locality the deaths and death-rate for the past four years are here shown :—

		Deaths.				Death-rate.			
		1896.	1897.	1898.	1899.	1896.	1897.	1898.	1899
Amberley Parish	..	12	8	7	9	23·1	15·4	13·5	17·3
Pulborough Parish	..	15	17	27	25	8·3	9·4	15·0	13·9
Rest of Pulborough S.D.		31	29	24	23	22·0	20·6	17·0	16·3
Storrington Parish	..	15	21	21	22	11·9	16·7	16·7	17·5
Washington Parish	..	9	12	11	8	10·6	14·1	12·9	9·4
Rest of Washington S.D.		17	12	20	20	7·9	5·6	9·3	9·3
Total ..		99	99	110	107	12·4	12·4	13·7	13·4

In each parish the deaths in 1899 were thus distributed :—

North Stoke ..	..	1	..	Parham ..	..	1
Amberley ..	..	9	..	Storrington ..	..	22
Rackham ..	..	5	..	Sullington ..	..	none
Greatham ..	..	none	..	Thakeham ..	..	5
Hardham ..	..	4	..	Warminghurst ..	..	2
Cold Waltham ..	..	4	..	Ashington ..	..	1
Wiggonholt ..	..	1	..	Wiston ..	..	3
Pulborough ..	..	25	..	Washington ..	..	8
West Chiltington ..	..	8	..	Findon ..	..	8
Total ..		107				

### INFANT MORTALITY.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under one year.	Ratio to 1,000 Births.	Ratio.	
				1887-96.	1898.
Amberley Parish ..	19	3	158	61	182
Pulborough Parish ..	48	5	104	90	114
Rest of Pulborough S.D.	39	3	77	91	55
Storrington Parish ..	16	4	250	65	115
Washington Parish ..	16	2	125	62	173
Rest of Washington S.D.	47	4	85	76	45
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total ..	185	21	113	80	98

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000, the mean proportion in the preceding ten years having been 151.

### ZYMOTIC MORTALITY.

There were six deaths from zymotic diseases in the case of those which are notifiable, and there were five in the other class where the number of cases cannot be obtained. The rate of mortality was therefore equal to 1.37 per 1,000.

					Cases.	Deaths.
Fever.	Small Pox .. .. .	..	..	..	none	none
	Scarlatina .. .. .	..	..	..	16	none
	Diphtheria .. .. .	..	..	..	15	3
	Membranous Croup ..	..	..	..	1	none
	Typhus .. .. .	..	..	..	none	none
	Enteric .. .. .	..	..	..	5	3
	Continued .. .. .	..	..	..	none	none
	Relapsing .. .. .	..	..	..	none	none
	Puerperal .. .. .	..	..	..	none	none
	Cholera .. .. .	..	..	..	none	none
	Erysipelas .. .. .	..	..	..	4	none
					<hr/>	<hr/>
	Total .. .. .	..	..	..	41	6

In the other class the deaths were as follows :—

Measles .. .. .	..	..	..	..	none
Whooping Cough ..	..	..	..	..	4
Diarrhœa and Dysentery ..	..	..	..	..	none
Rheumatic Fever .. ..	..	..	..	..	1
					<hr/>
Total .. .. .	..	..	..	..	5

The Infectious Diseases (Notification) Act, 1889, came into operation on January 1st, 1890, and the number of cases notified were 36 in 1890, 34 in 1891, 21 in 1892, 43 in 1893, 41 in 1894, and 69 in 1895.

The prevalence in 1897-99, and in each quarter of 1899 of each notifiable disease is shown in the following table :—



		1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox..	..	—	—	—	—	—	—	—
Scarlatina ..	..	1	1	—	14	16	10	5
Diphtheria ..	..	2	2	5	6	15	19	4
Membranous Croup		—	—	—	1	1	—	—
Enteric Fever ..	..	2	—	3	—	5	6	1
Continued Fever ..	..	—	—	—	—	—	—	—
Puerperal Fever ..	..	—	—	—	—	—	—	—
Erysipelas ..	..	3	—	—	1	4	4	1
		—	—	—	—	—	—	—
Total ..		8	3	8	22	41	39	11

There was no epidemic prevalence of disease during the year, and the few cases that occurred, presented no special points of interest.

Each house was visited, and the usual precautions as to isolation and disinfection were taken.

### POLLUTION OF A STREAM AT WASHINGTON.

A case under the Rivers' Pollution Prevention Act came before his Honour Judge Martineau at Worthing County Court, June 19th, when the Thakeham Rural District Council asked for an injunction against Mr. Frederick Charman, as the occupier of the Frankland Arms, Washington, to restrain him from discharging sewage into a ditch on the opposite side of the road.

Mr. Boxall said the Thakeham Rural District Council desired his Honour to make an order restraining the defendant from polluting a stream which was situated in their district. It was a matter about which there had already been a considerable amount of trouble, and he was afraid he should have to ask his decision on some rather troublesome points of law. The defendant was the occupier of a roadside inn, the Frankland Arms, on the high road between Worthing and Horsham, and defendant claimed a right to discharge its sewage into an open ditch on the opposite side of the road, and from thence into a small stream. The stream, he admitted, was merely a country brook, but it was just the class of stream which ought to be preserved pure and unpolluted, and which by its very smallness was all the more liable to dangerous pollution. The ditch in question was made by the old Trustees of the road for the purpose of taking the water off the road, but the defendant contended that it had become a sewer, and by availing himself of this contention he was trying to get his premises drained at the expense of the Rural District Council. This contention he believed was founded on the fallacy that it was the duty of the public authority to provide sewers, and to keep and maintain such sewers in order, but he submitted that it was not the duty of the public authority to provide drainage for isolated houses, and he should ask his Honour to find that this ditch was not a sewer.

Mr. Day for the defence, submitted that the distinction between waste water and solid sewage was not material, and he also claimed a prescriptive right to drain into the ditch in question.



Several cases bearing on the matter were cited by counsel, and in the end his Honour reserved his decision.

On August 21st, his Honour delivered judgment in this case, which was heard at the June Court, and in which the plaintiffs sought to obtain an order under the Rivers' Pollution Prevention Act against the landlord of the Frankland Arms, Washington. The defendant, his Honour observed, was the tenant under brewers of a public-house called the Frankland Arms, adjoining the high road from Horsham to Worthing, and there were two drains passing from the public-house under the road into a ditch on the opposite side. These drains appeared to have been made several years ago, probably before the date of the Act, and they were constructed, it would seem, for the express purpose of taking the liquid sewage matter away from the public-house to the roadside ditch. From this ditch the sewage got into a tumbling bay, and from thence into the stream in question, which it polluted. The question he had to determine was whether the defendant had committed an offence against the Act, and he had come to the conclusion that there had been an offence under Section III. There were two exemptions under this Section, but he was of opinion that the defendant was not entitled to the benefit of either of them. The defence set up was that the roadside ditch was a sewer within the meaning of the Public Health Act of 1875, as it received sewage from other houses not within the same curtilage, and that, being a sewer, it was the duty of the plaintiffs, as the sanitary authority, to see that the ditch did not pollute the stream. With regard to this proposition, there was a conflict of evidence as to whether other houses sent sewage into the roadside ditch, but, even if they did, that would not, in his opinion, necessarily make the roadside ditch a sewer. In his opinion the ditch was not a sewer, but an open surface drain for the reception of surface water off the main road, and, therefore, under the control of the County Council, rather than that of the Rural District Council. From and after the 21st February, 1900, he ordered the defendant to abstain from sending either liquid or solid sewage matter into the ditch under a penalty of 40s. a day, and he also directed that the defendant should pay the costs of the proceedings. Both sides had liberty to appeal.

### SYSTEMATIC INSPECTION.

PULBOROUGH.—A house-to-house inspection of Lower Street, Pulborough, was made in August last, and a Parochial Committee was appointed and met at Pulborough on September 1st, 1899, when the question of draining the lower street was discussed, and the place was inspected. There is an open brick channel on the north side of this street about 760 feet in length. Along the street there are nineteen houses built on ground rising behind to the north, where the wells are dry. Fifteen of these houses have their scullery drains connected with this open channel, whence the dirty house water and storm water pass into a culvert, and then by a short covered drain into the river Arun.

No material changes were made, and in order to prevent pollution of the wells in this sandy soil, I consider it is the best plan to use the channel for the above purposes. No closets nor urinals are in any way connected with it.

STORRINGTON.—A house to house inspection was made in March and April at Storrington, and Mr. Grant in his report states that there are 78 pail closets, 6 trough closets, and 1 earth closet which require to be emptied weekly, 137 privies which require emptying at various intervals, and 56 water closets.

The Sanitary Inspector, Mr. E. H. Grant, reported for the year ended 31st December, 1899 :—

No. of Houses visited .. ..	526
No. of Nuisances reported .. ..	65
No. of Nuisances abated without notice .. ..	87
No. of Nuisances abated with notice .. ..	7
No. of Houses disinfected .. ..	17
No. Cases of Overcrowding abated .. ..	4
No. of Water Certificates granted .. ..	7
No. of Samples of Water analysed .. ..	9

### SCAVENGING AND CLEANSING.

In the parish of Storrington the emptying and cleansing of cesspools, privies, earth and pail closets and the removal of house refuse (including all bottles, glass, crockery and tins), is done by a Contractor. Pail closets are emptied and cleansed, and house refuse removed weekly.

The duties of the Contractor are as follows :—

1. When required by the Council or their Inspector of Nuisances to remove all house refuse (including all bottles, glass, crockery, and tins), and empty, remove from, and cleanse all earth and pail closets, privies, ashpits, and cesspools for the time being within the Parish.

2. To perform his duties between the hours of 10 p.m. and 8 a.m. and on every Friday morning between 6 a.m. and 10 a.m., to traverse West Street, Church Street, The Square, North Street, Back Lane, Brewer's Yard, White Horse Yard, High Street, Washington Road, and School Hill, for the purpose of removing house refuse in moveable receptacles from any premises situate in or near to any of such streets.

In the parish of Pulborough a length of open drain is cleansed by contract.

### DAIRIES AND COWSHEDS.

New regulations were made by the Rural District Council with respect to Dairies, Cowsheds, and Milk Shops, which came into force on and after the 15th day of August, 1899, and the old regulations which were adopted on April 12th, and came into force on July 1st, 1887, are now revoked.



## BAKEHOUSES.

These are in general found to be kept in good condition. In one case however the bakehouse was in a dirty state. This was remedied on the occupier's attention being called to it.

## SLAUGHTER HOUSES.

The slaughter houses are kept in fair condition.

## PROCEEDINGS BEFORE THE MAGISTRATES.

A house at Coldwaltham was found to be overcrowded. Notice to abate this being ineffectual, proceedings were taken against the occupier. The Justices made an order for abatement within 21 days, which order was complied with.

A street drain in the Parish of Storrington has been cleansed and partly relaid, the cost being charged on the Parish.

Two licenses for the storage of Carbide of Calcium were granted.

## INQUESTS.

Inquests were held in twelve cases:—Female, 26 years, coma, embolism in the brain after childbirth; female, 39 years, syncope, clot in the heart after confinement; male, 3 years, accidentally scalded; male, 26 years, suicide by cutting throat with a razor; female, 62 years, apoplexy; male, 19 years, accidental fall under a train; female, 8 years, membranous laryngitis; female, 55 years, accidentally drowned; female, 16 months, accidentally drowned; male, 60 years, suicide by hanging; male, 4 years, disease of lungs; male, 2 years, accidentally suffocated.

There was no death returned as “not certified” during the year.



## THAKEHAM RURAL DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the fifteen years, 1881-95 and in 1896-99.

Period.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1881-85 ...	583	80	58	30	27	112	206
1886-90 ...	575	85	56	23	28	166	217
1891-95 ...	653	90	40	43	36	183	261
Per 1,000 ...	1,000	141	85	53	50	293	378
1896... ..	99	13	12	3	2	28	41
1897... ..	99	21	6	3	2	25	42
1898... ..	110	18	7	6	1	33	45
1899... ..	107	21	12	2	6	36	30

TABLE 2.—Showing the Deaths from various causes in the twenty years, 1876-95, and in 1896-99.

Period.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1876-80 ...	—	11	1	—	1	2	—	—	—	—	3	4	39	11	1	—	73
1881-85 ..	—	8	13	—	1	4	—	—	2	—	5	1	5	5	1	—	45
1886-90 ...	1	5	16	—	—	6	—	—	4	—	4	3	14	9	—	4	66
1891-95 ...	—	1	22	1	—	7	—	—	—	—	1	2	11	8	3	31	87
1896 ...	—	—	4	1	—	—	—	—	—	—	—	2	—	1	—	—	8
1897 ...	—	—	—	1	—	—	—	—	—	—	—	—	4	1	—	2	8
1898 ...	—	—	1	—	—	2	—	—	—	—	—	—	3	2	—	3	11
1899 ...	—	—	3	—	—	3	—	—	—	—	—	—	4	—	1	1	12
Total ...	1	25	60	3	2	24	—	—	6	—	13	12	80	37	6	41	310

## THAKEHAM RURAL DISTRICT.

TABLE 3.—Showing the Death-rate per 100,000 persons living from all causes, and from various causes, in different localities, during the twenty years, 1876-95, and the Death-rate in 1896-99.

LOCALITY.	All Diseases.	Notifiable.	Non-notifiable.	Phthisis.	Lung Disease.	Heart Disease.
Amberley Parish ..	1,745	45	127	118	418	100
Pulborough Parish ..	1,615	86	58	153	258	170
Rest of Pulborough S.D.	1,500	51	82	145	251	171
Storrington Parish ..	1,454	83	41	163	288	132
Washington Parish ..	1,446	101	71	113	220	119
Rest of Washington S.D.	1,313	64	75	102	298	134
Mean .. ..	1,498	72	71	135	265	145
PERIOD.						
1876-80 .. ..	1,563	43	132	148	273	134
1881-85 .. ..	1,410	79	29	152	253	104
1886-90 .. ..	1,389	87	63	128	276	140
1891-95 .. ..	1,629	80	60	112	257	202
1896 .. ..	1,237	63	37	62	162	100
1897 .. ..	1,237	12	63	87	212	200
1898 .. ..	1,375	37	63	100	137	262
1899 .. ..	1,337	75	63	100	162	88

(A)—Table of DEATHS during the Year 1899, in the THAKEHAM

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and upwards. (h)		Small Pox. (j)	Scarlatina. (k)
Amberley Parish ... ..	7	2	1	—	—	3	1	Under 5 ..... 5 upwards.		
Pulborough Parish ... ..	20	4	4	—	2	8	2	Under 5 ..... 5 upwards.		
Rest of Pulborough Sub-District	20	3	2	2	1	7	5	Under 5 ..... 5 upwards.		
Storrington Parish ... ..	21	4	—	—	1	9	7	Under 5 ..... 5 upwards.		
Washington Parish ... ..	6	2	1	—	—	1	2	Under 5 ..... 5 upwards.		
Rest of Washington Sub-District	18	4	4	—	1	4	5	Under 5 ..... 5 upwards.		
Thakeham Workhouse ... ..	15	2	—	—	1	4	8	Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
TOTALS.....	107	21	12	2	6	36	30	Under 5 ..... 5 upwards.		
The subjoined numbers have also to be taken										
Deaths occurring outside the District among persons belonging thereto.....								Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...								Under 5 ..... 5 upwards.		



AL DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

TALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
FEVERS.																	
Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Influenza.	Injuries.	All Other Diseases.	TOTAL.
												1				2	3
	1											1	1			1	4
												3				4	8
										1	2		3		1	5	12
	1										1	1			1	4	5
								3				1			1	9	15
											2	1					4
												1				13	17
															1	2	3
																3	3
								1				1			1	5	8
											2	1	1		2	4	10
																2	2
	1										1	3	2			6	13
								4				6			3	19	33
	3									1	8	7	7	1	4	41	74

nt in judging of the above records of mortality.

[illegible]

## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the THAKEHAM

Names of Localities adopted for the purpose of these Statistics ; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS COMING TO THE KNOWLEDGE OF THE OFFICER OF HEALTH.						
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5		
									Small Pox.	Scarlatina.	Diphtheria.
(a)	(b)	(c)	(d)	(e)							
Amberley Parish ... ..	525	520	19	Under 5 ..... 5 upwards.							
Pulborough Parish ... ..	1,787	1,800	48	Under 5 ..... 5 upwards.			3 8				
Rest of Pulborough Sub-District	1,434	1,410	39	Under 5 ..... 5 upwards.		1 2		3			
Storrington Parish ... ..	1,293	1,260	16	Under 5 ..... 5 upwards.			1 1				
Washington Parish ... ..	838	850	16	Under 5 ..... 5 upwards.							
Rest of Washington Sub-District	2,094	2,085	47	Under 5 ..... 5 upwards.		1 10		1			
Thakeham Workhouse ... ..	78	75	—	Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
				Under 5 ..... 5 upwards.							
TOTALS .....	8,049	8,000	185	Under 5 ..... 5 upwards.		2 14	3 13				

INFECTIOUS SICKNESS, coming to the knowledge of the Medical District; classified according to DISEASES, AGES, and LOCALITIES.

[illegible]



# EAST PRESTON RURAL DISTRICT.

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pp. 89 et seq.

## EAST PRESTON RURAL DISTRICT.

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The population in this registration district was 17,568 at the census of 1841 and 18,746 in 1851; owing chiefly to changes in the area, it declined to 17,423 in 1861; after which period it rose to 21,579 in 1871, to 26,364 in 1881, and to 32,394 in 1891. These figures, however, include the urban districts of Worthing and Littlehampton, which rapidly increased during this period, and Arundel with its almost stationary population.

The following figures show only the changes in the rural part of the district :—

	1861.	1871.	1881.	1891.
Area in Statute Acres ..	—	30,520	30,696	30,637
Number of Inhabited Houses..	1,355	1,467	1,662	1,805
„ Uninhabited „	45	77	87	75
Population .. ..	6,716	7,675	8,025	8,692
Males .. ..	3,450	3,900	4,065	4,371
Females .. ..	3,266	3,775	3,960	4,321
Persons to a House .. ..	4.95	5.23	4.83	4.81

The following table gives the usual information as to the incidence of various diseases in each parish in this district.

In Table 3 the death-rates for various groups of diseases are given for the whole district and for each sub-district for a period of twenty years.

The mean general death-rate for the whole district was 14.8 per 1,000 in the twenty years 1876-95; there was a steady fall in the mortality from 1876 to 1890, since which time there has been a rise.

All deaths occurring in East Preston Workhouse, which is situated within the district, have been distributed to each parish whence the inmate came. The deaths in that Institution belonging to any urban district have been transferred to the town to which the persons belonged.

Table showing the Deaths from various causes in each Parish in the twenty-four years, 1876-99.

PARISH.	Notifiable.								Non-notifiable.				Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.				Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.					
					Typhus.	Enteric.	Continued.	Puerperal.									
Broadwater ..	—	9	8	1	—	12	—	1	1	6	8	8	1	33	53	32	378
Heene (1876-90) ..	—	1	3	—	—	1	—	—	—	—	—	1	—	6	3	5	50
West Tarring ..	—	5	6	1	—	16	—	—	1	4	7	19	1	28	53	34	383
Clapham ..	—	1	—	—	—	1	—	—	—	—	1	4	—	5	12	5	84
Durrington ..	—	—	2	—	—	1	—	—	—	1	—	1	—	4	13	6	67
Goring ..	—	1	10	—	—	—	—	—	—	3	1	8	—	20	33	20	216
Ferring ..	—	1	1	—	—	2	—	—	—	—	—	1	—	5	12	13	80
Kingston ..	—	—	—	—	—	—	—	—	—	—	—	—	—	2	3	1	15
East Preston ..	—	1	1	—	—	—	—	—	2	3	5	—	—	9	14	12	96



Angmering ..	—	3	5	—	—	1	—	—	—	—	6	7	—	24	54	35	317
Lyminster ..	—	3	11	1	—	4	—	1	—	5	13	26	—	58	104	41	563
Rustington ..	—	1	—	1	—	—	—	—	—	—	4	—	—	11	21	19	135
Climping ..	—	—	3	—	—	—	—	—	—	1	2	—	—	8	10	13	91
Ford ..	—	1	1	—	—	—	—	—	—	—	—	—	—	2	7	3	29
Tortington ..	—	1	1	—	—	3	—	1	—	1	—	2	—	4	10	12	79
Lyminster (N.) ..	—	1	4	—	—	—	—	—	—	1	4	—	—	6	9	9	82
Poling ..	—	—	—	—	—	—	—	—	2	—	1	1	—	10	13	8	88
Angmering (N.) ..	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	15
Patching ..	—	1	1	—	—	—	—	—	—	1	—	—	—	4	12	13	88
Warningcamp ..	—	—	—	—	—	—	—	—	—	—	1	1	—	—	3	8	35
Burpham ..	—	—	—	—	—	3	—	—	—	—	2	1	1	11	11	6	94
South Stoke ..	—	1	1	—	—	—	—	—	—	—	1	—	—	4	4	10	56
Houghton ..	—	—	—	—	—	—	1	—	—	—	—	1	—	7	10	10	67
Total ..	—	31	58	4	—	44	1	2	7	26	56	82	3	261	465	315	3,108

## BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 290 children were registered; of these 135 were male, and 155 were female.

Estimating the population in the middle of the year at 10,000, the birth-rate was equal to 29·0 per 1,000 persons living.

The births and birth-rate during the past ten years were thus recorded :—

Year.	Births.	Birth-rate.	Year.	Births.	Birth-rate.
1890 ..	204	23·4	1895 ..	278	30·2
1891 ..	244	28·0	1896 ..	284	29·8
1892 ..	204	23·3	1897 ..	274	28·0
1893 ..	260	29·5	1898 ..	271	27·5
1894 ..	269	30·0	1899 ..	290	29·0

The mean number of births is 258, and the mean birth-rate is 27·9 per 1,000 of population.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

The following table shows the births and birth-rate in each locality during three periods :—

	Birth-rate.		Births.		Birth-rate.	
	1877-84.	1893-97.	1898.	1899.	1898.	1899.
Worthing Sub-District ..	30·8	31·2	121	117	30·2	28·5
Littlehampton Sub-District	30·9	29·8	93	109	25·3	29·5
Arundel Sub-District ..	29·9	26·1	57	64	26·3	29·1
Mean ..	30·6	29·5	271	290	27·5	29·0

## GENERAL MORTALITY.

There were 185 deaths registered in this district during the year 1899, but from this number must be deducted the deaths of 26 persons in East Preston Workhouse belonging to urban areas, outside this district. Of these 26 persons, 17 came from Worthing, 6 from Littlehampton, and 3 from Arundel. There were 3 deaths in Worthing Infirmary of 9 persons belonging to this district, making the total 162.

There were also 16 other deaths in the Workhouse, and these have been distributed among the several parishes whence each inmate came, viz. :—West Tarring 1, Clapham 1, Durrington 1, Ferring 1, East Preston 3, Angmering 4, Lyminster 1, Climping 1, Poling 1, Patching 1, and Warningcamp 1.

The above numbers include the deaths of 3 male adults in Rustington Convalescent Home.

Estimating the population in the middle of the year at 10,000, the death-rate was equal to 16·2 per 1,000 persons living.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

The variations in the death-rate during the past ten years are here shewn :—

Year.	Deaths.	Death-rate.	Year.	Deaths.	Death-rate.
1890 ..	122 ..	14·0	1895 ..	164 ..	17·8
1891 ..	123 ..	14·1	1896 ..	156 ..	16·4
1892 ..	143 ..	16·3	1897 ..	145 ..	14·8
1893 ..	145 ..	16·5	1898 ..	143 ..	14·5
1894 ..	124 ..	13·8	1899 ..	162 ..	16·2

The mean number of deaths is 143, and the mean-death rate is 15·4 per 1,000. During the decade there were 2,578 births, so that the natural increase of births over deaths was 1,151.

The following table shows the deaths and death-rate in each locality during the past four yeas :—

	Deaths.				Death-rate.			
	1896.	1897.	1898.	1899.	1896.	1897.	1898.	1899.
Worthing S.D. . . .	60	49	60	74	15·8	12·4	15·0	18·2
Littlehampton, S.D. . .	69	69	55	65	19·4	18·7	14·9	17·6
Arundel Sub-District ..	27	27	28	23	12·5	12·4	12·9	10·5
Total ..	156	145	143	162	16·4	14·8	14·5	16·2

In each parish the deaths in 1899 were thus distributed :—

Broadwater ..	12	Climping ..	4
West Tarring ..	41	Ford ..	2
Clapham ..	4	Tortington ..	5
Durrington ..	4	Lyminster (north) ..	1
Goring ..	9	Poling ..	2
Ferring ..	4	Angmering (north) ..	1
Kingston ..	1	Patching ..	4
East Preston ..	7	Warningcamp ..	1
Angmering (south) ..	16	Burpham ..	5
Lyminster (south) ..	26	South Stoke ..	3
Rustington ..	9	Houghton ..	1
Total ..	162		

## INFANT MORTALITY.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—



	Births.	Deaths under one year.	Ratio to 1,000 Births.	Ratio.	
				1887-96	1898.
Worthing Sub-District ..	117	20	171	88	99
Littlehampton Sub-District	109	12	110	101	161
Arundel Sub-District ..	64	2	31	72	70
	---	---	---	---	---
Total ..	290	34	117	87	111

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000, the mean proportion in the preceding ten years having been 151.

### ZYMOTIC MORTALITY.

There were seven deaths from zymotic diseases in the case of those which are notifiable, and there were 11 in the other class where the number of cases cannot be obtained.

Adding the two classes together, there is a total of 18 deaths with a zymotic mortality of 1.80 per 1,000.

				Cases.	Deaths.
	Small Pox .. ..	..	..	none	none
	Scarlatina .. ..	..	..	29	1
	Diphtheria .. ..	..	..	10	2
	Membranous Croup ..	..	..	none	1
Fevers.	{ Typhus .. ..	..	..	none	none
	{ Enteric .. ..	..	..	17	2
	{ Continued .. ..	..	..	none	none
	{ Relapsing .. ..	..	..	none	none
	{ Puerperal .. ..	..	..	none	none
	{ Cholera .. ..	..	..	none	none
	Erysipelas .. ..	..	..	13	1
	Total .. ..	..	..	69	7

The deaths in the other classes were as follows :—

Measles .. ..	..	..	..	none
Whooping Cough ..	..	..	..	4
Diarrhœa and Dysentery ..	..	..	..	6
Rheumatic Fever ..	..	..	..	1
				---
Total .. ..	..	..	..	11

The Infectious Disease (Notification) Act, 1891, came into operation in this district on March 1st, 1891, and on the same day the Infectious Disease (Prevention) Act, 1890, also took effect.

On March 21st, 1891, the Public Health Acts Amendment Act, 1890, Part III, came into operation.

The prevalence in 1897-99, and in each quarter of 1899 of each infectious disease is shown here:—

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox.. ..	—	—	—	—	—	—	—
Scarlatina .. ..	14	—	6	9	29	48	6
Diphtheria .. ..	—	—	6	4	10	11	7
Membranous Croup	—	—	—	—	—	—	—
Enteric Fever ..	1	5	5	6	17	17	15
Continued Fever ..	—	—	—	—	—	—	—
Puerperal Fever ..	—	—	—	—	—	1	1
Erysipelas .. ..	4	3	2	4	13	3	8
Total ..	19	8	19	23	69	80	37

There was no epidemic prevalence of any infectious disease during the year, and the following scheme shows pretty clearly the parishes and the months in which three of the chief diseases were met with.

Isolation of the patient, the disinfection and cleansing of each house seemed to prevent the spread of the disease, and in each case the children in the infected house were not allowed to go to school.

	SCARLATINA.							DIPHTHERIA.					ENTERIC FEVER.					
	West Tarring.	Durrington.	East Preston.	Wick (Lynminster).	Broadwater.	Angmering.	Houghton.	Broadwater.	West Tarring.	Durrington.	Tortington.	South Stoke.	Warningcamp.	Broadwater.	West Tarring.	Wick (Lynminster).	Burpham.	Goring.
Jan..	1	2	1	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Feb..	—	—	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—
March	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
April	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
May	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1	—	—	—
June	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
July	—	—	—	—	1	—	—	1	1	—	—	—	—	1	—	1	—	—
Aug.	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—
Sept.	—	—	—	4	1	—	—	—	3	—	—	—	—	—	—	—	2	—
Oct.	2	—	—	1	—	1	1	—	—	—	2	1	—	1	—	3	—	1
Nov.	—	—	—	—	—	3	—	—	—	—	2	—	—	—	—	—	—	1
Dec.	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—

#### BROADWATER.

A Local Government Board inquiry was held by Colonel Durnford, R.E., on July 8th, 1898, on the application of the East Preston Rural District Council, to borrow £3,500, for works of sewerage for the parish of Broadwater.



Broadwater had a population in 1891 of 1,016, but at the present time it is estimated at 1,240. The assessable value for sanitary purposes was £5,411, and the area 1,756 acres. It was intended that the scheme should consist of a system of stoneware pipes laid in the main street from the Green to Ham Lane and down Ladydell Road, where a connection would be made with the Worthing main sewer. Subject to the approval of the Local Government Board, an agreement had been entered into with the Worthing Corporation for a connection with their sewer on the payment of a certain rental. This rental would vary according to the proportion of the respective populations, but for the first five years, at any rate, it would be £100 a year. There were certain provisions as to the actual carrying out of the work, the Corporation undertaking to lay the sewer south of the parish boundary, the District Council paying the cost. The works to be carried out by the District Council were all those inside the parish, and the Corporation would carry out those that were outside.

The scheme had been before the parish for several years, and it was thought that the best means of testing the feeling was to take a poll. This was done, with the result that by a large majority drainage was approved.

In February, 1897, acting upon the opinions of the ratepayers, the District Council proceeded with the scheme. The estimate was slightly increased after suggestions made by the Parochial Committee for local reasons. The first estimate was £2,779, and that amount had now been increased to £3,026, which would cover the cost of the works, including those to be done by the Corporation.

Mr. C. O. Blaber prepared a scheme for effectually draining the village from Broadwater Green through the main street, thence along Ham Lane and under the railway to the Worthing main sewer. The drain to be made of stoneware pipes with Stanford joints, and with the usual manholes and ventilating shafts. Three flushing tanks were provided and all the manholes can be used for flushing purposes. An iron pipe was used to carry the sewer under the railway.

Tenders were sent in for the work, and on September 13th, 1898, the District Council, on the recommendation of the Broadwater Parochial Committee, accepted Messrs. Cook's tender for £2,860, viz. £1,980 for No. 1 portion, and £880 for No. 2. portion.

The works of sewage were soon afterwards commenced and they were completed in the spring of 1899. In May notice was sent to each owner or occupier within the contributory place that he was entitled to cause his drains to empty into the sewers recently laid.

A great many houses were at once connected, and the work has gone on in a satisfactory manner.

#### LITTLEHAMPTON AND WICK.

In my last report I printed the Order made on November 20th, 1898, by the County Council of West Sussex for transferring part of the parish of Lyminster, known commonly as



Wick, to the Littlehampton Urban District. Several petitions against this order were sent to the Local Government Board from the East Preston Rural District Council, from the Lyminster School Board, from private landowners, and others. The main contention was that the Order included a larger area than that which formed the subject of the inquiries, held by the Committee of the County Council on September 30th, 1897, June 16th, 1898, and September 8th, 1898, and that there was no power for such land to be included without the owners having had due notice of the extension, as otherwise they could not be represented.

On May 30th, 1899, a Local Government Board inquiry was conducted by Colonel W. R. Slacke, R.E., into the objections to the County Council Order transferring Wick, for all but ecclesiastical purposes, from the East Preston Rural District to the Littlehampton Urban District. Three inquiries were held by a Committee of the County Council before the Order was framed, and this inquiry by one of the Local Government Board's Inspectors was brought about by a petition received from the East Preston Rural District Council protesting against the large area which Wick would, under the terms of the County Council Order, carry with it to the urban district of Littlehampton. The Littlehampton Urban Council disagreed with the proposals of the Order affecting education, and petitioned against it, and the Rev. Gerald Moor petitioned against it on behalf of the Lyminster School Board. These protests, however, were stated to be invalid. Mr. A. Heasman stated the views of the East Preston Rural Council. While approving of the transfer, his Council did not agree to the area proposed in the County Council order, which they considered neither fair nor right. He pointed out that the grounds which the Rural District Council had in first asking the County Council to annex Wick to Littlehampton were that Wick was very thickly populated, that its sanitary condition required immediate attention and that the only practicable way of draining was into the Littlehampton sewers. Had the Rural District Council undertaken the sanitation of Wick, the whole parish of Lyminster would have had to bear the expense, and as Lyminster, which had an acreage of 2,667, was, with the exception of Wick (about 363 acres), a purely agricultural parish, the ratepayers in a large portion of the parish could not be called upon to pay for the sanitation of Wick. They considered that the area first suggested, and marked red on the map was right and fair, and it was contended by his Council that the County Council Committee exceeded the powers which they possessed by the Act of Parliament when they threw aside the two areas which had hitherto been before them, and arrived at one very different. If the County Council Committee were not satisfied with the areas suggested they should have recommended the County Council to make no order. The proposed alterations in the boundary were never before the Council, and no *prima facie* case was ever made out for it, as it should have been; it was never advertised in the district, and, with the exception of himself, who was a county councillor and knew a couple of days beforehand no member of the Rural Council knew of the alterations till it had been adopted by the County Council. The Council considered it was unfair to throw an area of agricultural land, larger than Littlehampton, under urban rule. The Rural District Council, under such arrangement, would be a considerable loser in rateable value. They had something like 72 miles of roads to look after, and a rateable value of about



£63,000. It was necessary, to meet their expenses, that they should retain as much property as they could. The additional land which it was proposed to hand over with Wick to Littlehampton represented a rateable value of £3,000 to the Rural Council; whereas to the Urban Council it would only mean an addition of £750 to the rateable value.

Mr. Raven then laid before the Inspector the objections of the Lyminster Parish Council, who were not represented at the last inquiry, and for whom no statement was made. He contended that the alteration in the proposed area was made without some of the people knowing anything whatever about it. He would state a case. A meeting was called to consider a proposal to alter an area. There was a definite proposal to take in a hundred acres. Then it was found convenient to recommend the taking in a thousand acres, and the County Council said, "Very well, we will make such an alteration." He submitted that no notice was given to the people affected by the enlargement of the area, and that, therefore, it was *ultra vires* under the Act of Parliament for the County Council to make that Order. As regards the object of the order, he supposed none would deny that Wick needed draining, and he argued that, for that purpose, instead of the scheme which had raised objections among every public body and every landowner in the district, an arrangement should have been come to between the Rural and Urban authorities for the extension of the Littlehampton Council's sewer into Wick, so that the sewage might drain into it. He believed that the Littlehampton Council would have been fully prepared to do their part in a scheme of that nature, seeing that it was to their interest to ward off epidemics which might arise from bad sanitation; and the cost of extending the sewer and erecting a pumping station would have been borne by the whole parish. The whole population of Lyminster was something like 1,600. From this population it was proposed to take some 1,350 into the urban district of Littlehampton. This constituted the proper portion of the parish. On the other hand, the northern part of Lyminster, which had a population of about 250, was a non-residential area with the exception of the residences of gentlemen and owners of property, who were all practically well-to-do. Running through the northern part of the parish, too, was a railway line, which of course was heavily rated, and those rich people in the north of Lyminster, who had no poor to support, would have no rates whatever to pay. He also pointed out that if the County Council Order were to remain good Littlehampton might form Wick into a separate drainage district and charge the whole of the expense upon its poor population; whereas, he contended, the expense should be distributed among rich and poor equally. Nothing could be more monstrously unfair than that Wick should have to bear the whole expense—and Wick had no security that this method would not be adopted.

Mr. Yorke said he was Chairman of the Littlehampton Urban Council when they received a delegation from the Lyminster Parish Council, asking if they would consent to the sewage of Wick being allowed to go into the Littlehampton main. The Littlehampton Authority at first opposed the suggestion, as they did not think their sewer sufficiently large to take the extra drainage. The Urban Council now felt, however, that with the proposed larger area they would be doing right in taking over the control of Wick, the Rural District Council having so utterly neglected their duty in the matter.

Mr. Raven, on behalf of the Lyminster School Board, thought he should be able to show that it was absolutely an afterthought on the part of the County Council Committee to interfere with the school arrangements, and that they never really considered the matter till the order was decided upon—he would not say actually made. He complained that the County Council had led the Education Department to believe that there was no opposition to the amalgamation of the schools and that the Lyminster School Board were quite willing to consent to their own extinction.

Mr. E. B. Wannop, on behalf of the Littlehampton School Board, said that the sole object of the Order was not the benefit of Wick in particular, but for the benefit of the large landowners adjoining who wished to place upon Littlehampton the expense of putting Wick in a sanitary state, and release the large area of land from any expense whatever; he submitted that a County Council had no power to dissolve a School Board without the consent of the Board itself. The Littlehampton Board had never consented to the change proposed, and had always opposed it; another objection on the part of the Littlehampton Board was that they would be saddled with a debt of £3,000 on schools, which they did not want, and which they strongly objected to have. It would increase the Littlehampton School Board rate by about  $2\frac{1}{2}$ d. in the £. They also objected that the northern part of Lyminster should go free from paying towards the cost of the schools. Major Mostyn, on behalf of the Duke of Norfolk, objected to both the alternative areas which the Rural Council favoured, but not to the boundary which was defined in the County Council's Order.

The Local Government Board decided that the objections were valid, and another inquiry will now have to be held.

### ISOLATION HOSPITAL AT SWANDEAN.

After much discussion an agreement was executed on September 13th, 1899, between the East Preston Rural District Council, and the Worthing Corporation, for the admission of persons suffering from infectious disease in the parishes of Broadwater, West Tarring, Durrington, Goring, Ferring, and Clapham, on certain conditions.

It has also been provided that pauper cases may be admitted to Swandean, when it is deemed necessary, and then the charges for medical attendance, necessities, nursing, and maintenance, will be defrayed by the Guardians. It was also arranged that admission to Swandean should be given only on the order of the Medical Superintendant of the Hospital.

During the year, 1899, six cases from the rural district were admitted to Swandean from Broadwater; four in one family were paid for by the Guardians, one from private sources, and one by the Rural District Council.



## SYSTEMATIC INSPECTION.

The following is a list of routine work during the year 1899, as recorded in the books of the Sanitary Inspector, Mr. Vail:—

No. of Houses visited	..	..	..	..	475
No. of Nuisances reported..	..	..	..	..	102
No. of Nuisances abated without notice	..	..	..	..	77
No. of Nuisances abated with notice	..	..	..	..	25
No. of Houses cleansed and limewashed	..	..	..	..	27
No. of Houses disinfected	..	..	..	..	31
No. of Water Certificates granted..	..	..	..	..	47
No. of Wells cleaned	..	..	..	..	6
No. of New wells	..	..	..	..	13
No. of Wells closed..	..	..	..	..	1
No. of Samples of Water analysed	..	..	..	..	4
No. of Samples of Water polluted..	..	..	..	..	1
No. of Cases of Overcrowding abated	..	..	..	..	0
No. of Privies altered	..	..	..	..	4
No. of Drains re-laid	..	..	..	..	5

## SCAVENGING AND CLEANSING

RUSTINGTON is a parish containing a population in 1891 of 434 persons living in 91 houses scattered over a large area. Since that date about 30 new houses have been erected and agricultural land is coming in for building purposes. At the east end of the parish there is an old occupation road, known as Broadmark Lane, running from north to south and leading to the sea where it ends. This lane is 900 yards in length, and until lately there were five old cottages here. The lane is nearly level, and it lies very low, the height above O.D. varying from 13 to 24 feet, so that when there is a high tide the water in the ditches cannot get away.

On the east side, seven new houses (villas) have been erected and at right angles to them, six more have been, or are being built. The frontage to these seven houses equals 70 yards, and the depth equals 50 yards, so that there is ample garden ground to each dwelling. On such a garden, it would be easy for each occupier so to use any house refuse as to make it profitable. Ashes should be sifted, and the finer part utilised on the soil; leaves, vegetable refuse, &c., should rot down so as to make leaf mould; broken crockery, tins, &c., might be stored in a corner, and taken away at intervals. Those who are used to a country life readily adopt such methods; those who are used to a town life cannot easily adapt themselves to their new surroundings when they retire into the country; hence complaints are now and then heard of the necessity of by-laws for scavenging and cleansing—by-laws which are much needed in populous areas where there is no space around a dwelling suitable for dealing with the refuse, but not needed in an open area where nearly everything can be profitably utilised on the soil, and where an ample leisure may be turned to some useful purpose. I consider that in Broadmark Lane, there is no need at present to adopt any by-laws for the above purposes.

The scavenging of house refuse at Broadwater and West Tarring, and the emptying of privies and cesspools at Broadwater, and in that part of West Tarring which is outside the sewage area, has been carried out satisfactorily by the contractors in each parish.

### WATER SUPPLY.

No change has taken place during the year ; most of the houses in Broadwater and West Tarring are supplied from the Worthing Waterworks.

### BAKEHOUSES.

The fifteen bakehouses have been frequently inspected, and they have been well kept.

### SLAUGHTER HOUSES.

These are six in number, and they have been kept in good order but they require frequent inspection to see that no nuisance arises.

### COWSHEDS AND DAIRIES.

The twenty-six cowsheds have been regularly inspected and kept clean ; no disease of any animals was recorded during the year.

### LODGING HOUSES.

There is no Common Lodging House in the District.

### PROCEEDINGS BEFORE THE MAGISTRATES.

No legal proceedings were taken during the year.

### INQUESTS.

Inquests were held in twelve cases :—Male, 68 years, found drowned on the sea-shore ; female, 7 years, membranous croup ; male, 77 years, syncope, from fatty degeneration of the heart ; male, 39 years, accidentally struck by a train ; female, 48 years, syncope, from fatty degeneration of the heart ; male, 3 months, convulsions due to chronic

dyspepsia ; male, 7 weeks, mal-nutrition from inability to assimilate food ; female, 75 years, heart disease and bronchitis ; female, 25 years, accidentally drowned while bathing in the sea ; male, 62 years, injuries sustained through accidentally falling from a load of hay ; female, 39 years, valvular disease of the heart ; male, 17 years, inflammation of the brain.

There were three deaths returned as "not certified" during the year:—Male, 4 days, premature birth, inanition ; female, 12 months, convulsions due to teething ; female, 59 years, heart disease.



## EAST PRESTON RURAL DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the fifteen years, 1881-95 and in 1896-99.

Period.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1881-85 ...	603	100	53	35	28	185	202
1886-90 ...	566	82	50	30	34	149	221
1891-95 ...	699	118	69	47	39	191	235
Per 1,000 ...	1,000	161	92	60	54	281	352
1896... ..	156	27	18	16	8	32	55
1897... ..	145	27	15	5	8	33	57
1898... ..	143	30	9	7	5	40	52
1899... ..	162	34	11	8	8	43	58

## EAST PRESTON RURAL DISTRICT.

TABLE 2.—Showing the Deaths from various causes in the twenty years, 1876-95, and in 1896-99.

Period.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1876-80 ...	—	11	8	—	—	9	1	—	—	—	2	4	8	19	—	—	62
1881-85 ..	—	8	17	—	—	1	—	—	1	—	2	9	8	7	2	—	55
1886-90 ...	—	5	13	—	—	1	—	—	1	—	—	1	17	16	—	—	54
1891-95 ...	—	1	9	2	—	27	—	—	—	—	2	5	9	15	—	20	90
1896 ...	—	2	8	1	—	2	—	—	—	—	—	6	5	4	—	3	31
1897 ...	—	—	—	—	—	1	—	—	—	—	—	1	4	5	—	1	12
1898 ...	—	3	1	—	—	1	—	—	—	—	—	—	1	10	—	4	20
1899 ...	—	1	2	1	—	2	—	—	—	—	1	—	4	6	1	9	27
Total ...	—	31	58	4	—	44	1	—	2	—	7	26	56	82	3	37	351

## EAST PRESTON RURAL DISTRICT.

TABLE 3.—Showing the Death-rate per 100,000 persons living from all causes, and from various causes, in different localities, during the twenty years, 1876-95, and the Death-rate in 1896-99.

LOCALITY.	All Diseases.	Notifiable.	Non-notifiable.	Phthisis.	Lung Disease.	Heart Disease.
Worthing Sub-District ..	1,571	108	79	135	240	140
Littlehampton Sub-Dist.	1,488	53	81	138	250	123
Arundel Sub-District ..	1,280	41	38	92	154	131
Mean .. ..	1,483	72	71	128	223	134
PERIOD.						
1876-80 .. ..	1,645	80	80	176	209	148
1881-85 .. ..	1,452	70	63	130	201	149
1886-90 .. ..	1,286	46	79	100	209	128
1891-95 .. ..	1,550	91	64	106	275	111
1896 .. ..	1,638	136	158	168	210	210
1897 .. ..	1,480	10	102	133	184	214
1898 .. ..	1,452	51	111	61	223	233
1899 .. ..	1,620	70	110	120	240	260



(A)—Table of DEATHS during the Year 1899, in the EAST PRESTON

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and upwards. (h)		Small Pox. .....	Scarlatina. .....
Worthing Sub-District ...	67	20	4	5	2	16	20	Under 5 ..... 5 upwards.		
Littlehampton Sub-District ..	54	11	4	3	2	17	17	Under 5 ..... 5 upwards.		1
Arundel Sub-District ...	20	2	3	—	3	5	7	Under 5 ..... 5 upwards.		
East Preston Workhouse ...	42	3	—	—	1	11	27	Under 5 ..... 5 upwards.		
Rustington Convalescent Home	2	—	—	—	—	2	—	Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
TOTALS.....	185	36	11	8	8	51	71	Under 5 ..... 5 upwards.		1

The subjoined numbers have also to be taken in

Deaths occurring outside the District among persons belonging thereto.....	3	—	—	—	—	2	1	Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...	26	2	—	—	—	10	14	Under 5 ..... 5 upwards.		

URAL DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

[illegible]

ount in judging of the above records of mortality.

[illegible]

## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the EAST PRESTON

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICK COMING TO THE KNOWLEDGE OF THE OFFICER OF HEALTH.					
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5	6
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.
(a)	(b)	(c)	(d)	(e)						
Worthing Sub-District ...	3,261	4,100	117	Under 5 ..... 5 upwards.			1 5			2 7
Littlehampton Sub-District ...	3,285	3,500	109	Under 5 ..... 5 upwards.		5 14				5
Arundel Sub-District ... ..	1,984	2,200	64	Under 5 ..... 5 upwards.		1 1	1 3			3
East Preston Workhouse ...	162	170	—	Under 5 ..... 5 upwards.						
Rustington Convalescent Home	—	30	—	Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
TOTALS .....	8,692	10,000	290	Under 5 ..... 5 upwards.		5 24	2 8			1





# MIDHURST RURAL DISTRICT.

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pp. 111. et seq.

## MIDHURST RURAL DISTRICT.

The population in this registration district was 13,325 at the census of 1841 and 13,599 in 1851; there was then a decline owing to alterations in the area, and from 1861 onwards there has been a steady increase, as is shown in the following statement.

The figures here given relate to the present rural sanitary area which is co-extensive with the registration district:—

	1861.	1871.	1881.	1891.
Area in Statute Acres ..	—	65,695	66,571	66,744
Number of Inhabited Houses..	2,473	2,621	2,801	2,919
„ Uninhabited „	88	79	136	188
Population .. .. .	12,608	13,042	13,965	14,236
Males .. .. .	6,545	6,767	7,185	7,216
Females .. .. .	6,063	6,275	6,780	7,020
Persons to a House .. ..	5.10	4.97	4.98	4.84

The following table gives the usual information as to the incidence of various diseases in each parish in this district.

In Table 3 the death-rates for various groups of diseases are given for two large parishes and for each sub-district for a period of twenty years.

The mean general death-rate for the whole district was 14.9 per 1,000 in the twenty years 1876-95; there has been very little variation in the general mortality; consumption has apparently decreased, and lung diseases have increased.

All deaths occurring in Easebourne Workhouse have been distributed to each parish whence each inmate came.



Table showing the Deaths from various causes in each Parish in the twenty-four years, 1876-99.

PARISH.	Notifiable.										Non-notifiable.				Phthisis.	Lung Disease.	Heart Disease.	All Diseases.
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.					Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.					
					Typhus.	Enteric.	Continued.	Puerperal.	Erysipelas.									
East Lavington ..	—	—	1	—	—	4	—	—	1	—	2	—	—	—	4	4	8	56
West Lavington ..	—	—	—	—	—	1	—	—	—	—	—	2	—	—	5	13	7	66
Tillington ..	2	4	4	—	—	2	1	—	2	3	3	3	2	—	39	36	36	349
Lodsworth ..	—	—	1	—	—	3	—	—	1	2	4	1	—	—	35	27	28	262
Selham ..	—	—	—	—	—	1	—	—	—	—	—	1	—	—	3	3	1	21
Heyshott ..	—	—	11	—	—	5	—	1	1	1	—	1	1	—	7	23	9	152
Graffham ..	2	—	6	—	—	—	—	—	1	—	4	—	1	—	16	10	15	146
Cocking ..	—	—	—	—	—	2	—	1	2	1	5	—	2	—	17	24	21	159
Midhurst ..	—	1	8	—	—	10	—	—	3	2	17	4	4	—	73	84	65	648
Woolbeding ..	—	—	3	—	—	1	—	1	—	2	3	1	1	—	5	18	15	110
Easebourne ..	—	3	8	1	—	6	—	—	2	1	5	3	1	—	36	44	39	405

[illegible]

## BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 326 children were registered; of these 173 were male, and 153 were female.

Estimating the population in the middle of the year at 14,450, the birth-rate was equal to 22·6 per 1,000 persons living.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

The births and birth-rate during the past ten years have been thus registered :—

Year.	Births.	Birth-rate.	Year.	Births.	Birth-rate.
1890 ..	348 ..	24·4	1895 ..	345 ..	24·0
1891 ..	353 ..	24·7	1896 ..	336 ..	23·4
1892 ..	356 ..	24·9	1897 ..	346 ..	21·0
1893 ..	393 ..	27·5	1898 ..	328 ..	22·7
1894 ..	371 ..	25·9	1899 ..	326 ..	22·6

The mean number of births is 350, and the mean birth-rate is 24·4 per 1,000 of population.

The following table shows the births and birth-rate in each locality during three periods :—

		Birth-rate.		Births.		Birth-rate.	
		1876-84.	1893-97.	1898.	1899.	1898.	1899.
Midhurst Parish ..	..	25·9	25·6	24	33	13·9	19·1
Easebourne Parish ..	}	28·7	{	23·8	31	30	20·3
Rest of Midhurst S.D. ..				26·1	86	87	22·6
Fernhurst Sub-District ..	..	31·0	26·0	72	52	28·6	20·6
Harting Sub-District ..	..	30·0	24·4	115	124	23·7	25·6
Total ..	·	30·1	25·0	328	326	22·7	22·6

## GENERAL MORTALITY.

There were 188 deaths registered in this district during the year 1899, and of these sixteen took place in Easebourne Workhouse. These sixteen deaths have been distributed amongst the several parishes whence each inmate came, viz., Tillington 1, Lodsworth 1, Heyshott 3, Midhurst 4, Easebourne 1, South Ambersham 1, Lurgashall 1, Trotton 1, and Terwick 2.

Estimating the population in the middle of the year at 14,450, the death-rate was equal to 13·0 per 1,000 persons living.



In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

The variations in the death-rate during the past ten years are here shown :—

Year.	Deaths.	Death-rate.	Year.	Deaths.	Death-rate.
1890 ..	191 ..	13·4	1895 ..	198 ..	13·8
1891 ..	267 ..	18·7	1896 ..	173 ..	12·0
1892 ..	247 ..	17·3	1897 ..	191 ..	13·3
1893 ..	183 ..	12·8	1898 ..	184 ..	12·7
1894 ..	197 ..	13·7	1899 ..	188 ..	13·0

The mean number of deaths is 202, and the mean-death rate is 14·1 per 1,000 of population.

There have been during this decade 3,502 births, so that the natural increase of population by excess of births over deaths was 1,483.

The following table shows the deaths and death-rate in each locality during the past four years :—

	Deaths.				Death-rate.			
	1896.	1897.	1898.	1899.	1896.	1897.	1898.	1899.
Midhurst Parish ..	19	19	23	26	11·2	11·2	13·4	15·1
Easebourne Parish ..	17	22	17	10	11·4	14·4	11·1	6·4
Rest of Midhurst S.D. ...	53	46	56	62	14·0	12·1	14·7	16·3
Fernhurst Sub-District	31	26	28	17	12·3	10·3	11·1	6·7
Harting Sub-District ..	53	78	60	73	10·9	16·1	12·4	15·0
Total ..	173	191	184	188	12·0	13·3	12·7	13·0

In each parish the deaths in 1899 were thus distributed :—

East Lavington ..	3	..	Fernhurst ..	..	7
West Lavington ..	5	..	Linchmere ..	..	3
Tillington ..	16	..	Linch ..	..	1
Lodsworth ..	14	..	Stedham ..	..	4
Selham ..	3	..	Iping ..	..	6
Heyshott ..	5	..	Trotton ..	..	7
Graffham ..	4	..	Chithurst ..	..	2
Cocking ..	2	..	Terwick ..	..	5
Midhurst ..	26	..	Rogate ..	..	8
Woolbeding ..	7	..	Harting ..	..	29
Easebourne ..	10	..	Elsted ..	..	5
South Ambersham ..	3	..	Treyford ..	..	4
North Ambersham ..	1	..	Didling ..	..	1
Lurgashall ..	5	..	Bepton ..	..	2
Total ..	188				

## INFANT MORTALITY

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under one year.	Ratio to 1,000 Births.	Ratio. 1887-96	1898
Midhurst Parish ..	33	4	121	94	125
Easebourne Parish ..	30	—	—	83	{ 64
Rest of Midhurst Sub-District	87	6	69		{ 80
Fernhurst Sub-District ..	52	3	58	80	55
Harting Sub-District ..	124	15	121	92	87
	—	—	—	—	—
Total ..	326	28	86	87	80

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000, the mean proportion in the preceding ten years having been 151.

## ZYMOTIC MORTALITY.

The deaths from zymotic disease were six in the case of those which are notifiable, and seven in the other class where the number of cases cannot be obtained.

Adding the two classes together, there is a total of 13 deaths with a zymotic mortality of 0·90 per 1,000.

	Cases.	Deaths
Small Pox .. .. .	none	none
Scarlatina .. .. .	46	1
Diphtheria .. .. .	15	1
Membranous Croup .. .. .	none	none
Fever. {	Typhus .. .. .	none
	Enteric .. .. .	4
	Continued .. .. .	none
	Relapsing .. .. .	none
	Puerperal .. .. .	none
	Cholera .. .. .	none
	Erysipelas .. .. .	none
	—	—
Total .. .. .	86	6

The deaths in the other classes were as follows :—

Measles .. .. .	none
Whooping Cough .. .. .	4
Diarrhoea and Dysentery .. .. .	3
Rheumatic Fever .. .. .	none
	—
Total .. .. .	7

The prevalence in 1897-99, and in each quarter of 1899 of each infectious disease is shown in the following table:—

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox . . . . .	—	—	—	—	—	—	—
Scarlatina . . . . .	14	1	8	23	46	20	22
Diphtheria . . . . .	7	4	3	1	15	45	7
Membranous Croup	—	—	—	—	—	—	—
Enteric Fever . . . . .	2	8	7	1	18	1	8
Continued Fever . . . . .	—	—	—	—	—	—	—
Puerperal Fever . . . . .	—	—	—	—	—	—	1
Erysipelas . . . . .	2	2	3	—	7	11	11
Total . . . . .	25	15	21	25	86	77	48

The Infectious Disease (Notification) Act, 1889, came into operation in this district on January 1st, 1890. There were 55 cases notified in 1890, 83 in 1891, 100 in 1892, 85 in 1893, 39 in 1894, 42 in 1895, and 51 in 1896.

There was no epidemic prevalence of any infectious disease during the year, and the following scheme shows pretty clearly the parishes and the months in which three of the chief diseases were met with.

Isolation of the patient, the disinfection and cleansing of each house seemed to prevent the spread of the disease, and in each case the children in the infected house were not allowed to go to school.

SCARLATINA.									DIPHTHERIA.							
		Lurgashall.	Woolbeding.	Rogate	Harting.	Easebourne.	Stedham.	Tillington.	Midhurst.	East Lavington.	Grafham.	Midhurst.	Stedham.	Trotton.	Easebourne	Heyshott.
January	..	6	5	—	—	—	—	—	—	2	1	—	—	—	—	—
February	..	—	1	1	—	—	—	—	—	—	2	—	—	—	—	—
March	..	—	—	—	1	—	—	—	—	—	—	2	—	—	—	—
April	..	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
May	..	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—
June	..	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—
July	..	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—
August	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
September	..	—	—	—	—	—	—	5	1	—	—	—	—	1	1	1
October	..	—	—	1	—	1	—	9	—	—	—	—	—	—	—	—
November	..	—	—	—	—	1	—	1	2	—	—	—	—	—	—	—
December	..	—	—	—	—	2	—	6	—	1	—	—	—	—	—	—



	SCARLATINA.	DIPHTHERIA.	ENTERIC FEVER.
January ..	11	3	—
February ..	2	2	1
March ..	1	2	1
April ..	1	—	—
May ..	—	2	1
June ..	—	2	7
July ..	2	—	5
August ..	—	—	—
September ..	6	3	2
October ..	11	—	1
November ..	4	—	—
December ..	8	1	—

### WATER SUPPLY REGULATIONS.

The Council have obtained sanction for a loan of £1000 for the purpose of laying services to the houses from the mains.

COMMUNICATION PIPES.—1. The Council will, at the request of any owner or occupier desiring to be supplied with water, tap the nearest available Water Main, provide, connect and lay a proper ferrule and piping and a stop valve to within eighteen inches of the premises to be supplied.

CONSUMERS' PIPES.—2. The Owner or Occupier of any premises for whom the Council have laid a communication pipe to a stop valve, shall at his own expense, have laid by some properly qualified plumber to be approved by the Council, all proper pipes necessary to convey and distribute the supply to his premises.

3. Every consumer's pipe from any stop valve, not being of galvanised iron steam piping or other material sanctioned by the Council, must be of drawn lead of equal thickness throughout, and must be at least of the following weights:—If the internal diameter does not exceed  $\frac{1}{2}$ -inch at the rate of 5lbs. per lineal yard. If it exceeds  $\frac{1}{2}$ -inch but not  $\frac{5}{8}$ -inch at the rate of 7lbs. per lineal yard. If it exceeds  $\frac{5}{8}$ -inch but not  $\frac{3}{4}$ -inch at the rate of 9lbs. per lineal yard. If it exceeds  $\frac{3}{4}$ -inch but not 1-inch at the rate of 11lbs. per lineal yard.

4. Every consumer's pipe must be protected from frost, and when laid underground shall not be less than two feet from the surface of such ground or paving above the same unless other provision is made for its protection to the satisfaction of the Council's Surveyor.

5. No consumer's pipe shall be connected directly to any water boiler, water closet, or urinal, nor be laid, kept, or fixed through, in or into any drain, ashpit, or manure hole, or into any place where, in the event of the pipe becoming unsound, the water conveyed through such pipe would be liable to be fouled.

6. Every house or premises to be supplied with water shall have its own separate consumer's pipe, no house or premises will be allowed more than one consumer's pipe, unless with written permission of the Council.

**DRAWING COCKS, ETC.—7.** Every drawing cock or stop cock must be strong and well made of hard brass or gun metal, of the screw-down high-pressure type, and when not used for hot water be fixed with leather on the seat of the valve, and when used for hot water be of the form and material adapted for use with hot water, and all such cocks shall be approved and stamped by the Council.

**CISTERNS.—8.** The Council recommend that all houses be provided with storage cisterns, which must be made of slate or galvanised iron or other approved make, and be kept at all times absolutely water-tight.

9. Every cistern shall be fitted at the inlet with a sufficient ball cock, the valve being of the materials as specified in clause 8, and the ball attached to the arm shall be of copper. The diameter of the ball and the length of rod or spindle of such shall not be less than the following sizes in relation to the diameter of the inlet :—

Diameter of Pipe.	Length of Rod or Spindle.	Size of ball.
$\frac{1}{2}$ -inch.	12 inches.	$4\frac{1}{2}$ inches.
$\frac{3}{4}$ -inch.	14 inches.	$5\frac{1}{2}$ inches.

10. An overflow or waste pipe must not be attached or continue to be attached to any cistern, but as a precaution against over-filling a tell-tale or warning pipe must be fixed in a suitable manner so as to discharge in some conspicuous and approved place on the outside of the building containing such cistern.

11. No cistern for the supply of a house shall be fixed underground unless with the written authority of the Council, nor must water supplied by the Council be connected to any underground or rain water cistern, and all cisterns must be fixed in easily accessible positions and be protected from frost, light, and dust.

**WATER CLOSETS.—12.** Every water closet supplied with water from the Council's Mains shall only be supplied by means of a flush cistern of approved construction and of a capacity to discharge only two gallons of water, except the Council shall in writing permit a larger discharge, and no pipe shall be directly or indirectly connected with any part of the closet except from the said cistern referred to.

13. The "pull down" of the cistern shall be so constructed as to prevent it being fixed in any position which will allow the water to be left running to waste.

Every "down pipe" fixed from such cistern for the discharge of water into any pan or basin shall be of lead, and have an internal diameter of  $1\frac{1}{4}$  inches, and must not weigh less than 9lbs. per lineal yard.



14. All closet seats must be so constructed and fixed as to admit of easy removal for the purpose of examining the fittings and apparatus connected therewith.

15. The overflow pipes of every flush cistern must be carried through an external wall to act as a warning pipe and shall not in any case be connected with any soil pipe or waste pipe from any closet, bath or sink.

URINALS.—16. Every urinal not supplied by meter shall have a proper cistern in conformity with the regulations named in Clause 12

BATHS.—17. The inlet of every bath must be distinct and unconnected with the outlet, and should deliver above the overflow of such bath unless supplied from a cistern.

No overflow pipe, other than such as are made to act as warning pipes, shall be made or attached to any bath.

METERS.—18. A meter or other measuring apparatus must be of a kind, and placed in a situation approved in each instance in writing by the Council's Surveyor.

19. Every meter must be sufficiently protected from frost or other injury, and placed in such position with convenient means of access thereto to afford inspection by any officer of the Council.

20. A meter must not be connected to more than one inlet pipe leading direct from the communication pipe from the Council's Mains, and must be placed on the house side of the stop valve laid by the Council, and no drawing cock, branch pipe or apparatus shall be fixed to such inlet pipe.

21. The Council may at their discretion remove any meter for the purpose of testing the accuracy thereof, for examination or repair, for substituting another meter, or if in their opinion the quantity of water consumed does not warrant the use of a meter, or for any other reason, and no meter shall be used if it is found on being tested by the Council to be inaccurate.

22. All meters shall be fixed by the Council at the expense of the consumer or they can be rented from the Council, who will maintain them at a charge for the use thereof of 10 per cent. per annum upon their cost and fitting to the Main.

HOSE OR MOVEABLE PIPES.—23. No hose or moveable pipe shall be attached to any communication or consumer's pipe or fittings except by previous agreement with the Council.



## SCALE OF CHARGES.

TO BE CALCULATED UPON THE RATEABLE VALUE ACCORDING TO THE  
POOR RATE IN FORCE.

DOMESTIC CHARGES.—Houses of a rateable value of £8 and under  
—2d. per week.

Houses of a rateable value exceeding £8—1s. in the £ per annum  
on the rateable value, but in no case a less charge than 10s. per annum.

The above charges to include the supplies for two W.C.'s.

For every additional W.C.—5s. per annum.

For every fixed Bath—10s. per annum.

Private Stables assessed with houses, free for two horses and one  
carriage. For every additional horse or carriage 5s. each per annum.

Garden Hose for gardens by arrangement. Automatic or other  
standard sprinklers not allowed.

TRADE CHARGES.—Hotels and Schools—1s. 3d. in the £ per annum  
on the rateable value.

Livery and Trade Stables (separately assessed)—1s. 3d. in the £  
per annum on the rateable value (to include two horses and one  
carriage). For every additional horse and carriage—5s. each per annum.

Butchers, Bakers, and Fishmongers—10s. per annum.

Greengrocers and Hairdressers—5s. per annum.

Laundries 10s. per annum and upwards by arrangement.

Other Trades by arrangement.

## SYSTEMATIC INSPECTION.

The following is a list of routine work during the year 1899, as  
recorded in the books of Mr. A. G. Gibbs, the Sanitary Inspector :—

No. of Premises inspected .. .. .	385
No. of Nuisances reported .. .. .	223
No. of Nuisances abated with letter .. ..	209
No. of Nuisances abated with notice .. ..	3
No. of Houses reported unfit for habitation ..	17
No of Houses reported unfit for habitation closed	—

No. of Houses reported unfit for habitation repaired .. .. .	17
No. of Houses disinfected .. .. .	33
No. of Houses whitewashed .. .. .	35
No. of Cases of overcrowding .. .. .	3
No. of Cases of overcrowding abated .. .. .	3
No. of Samples of Water analysed .. .. .	23
No. of Samples of Water polluted .. .. .	10
No. of Water Certificates granted for new houses	16
No. of Wells dug or supplies improved .. .. .	10
No. of Houses where Drains re-laid after notice ..	13
No. of Plans approved for New Houses .. .. .	27

### DUCK LANE, MIDHURST.

The owner of these 12 houses which were reported upon in 1898, has placed them in good repair.

### SCAVENGING AND CLEANSING

The Council have contracted for the removal of house refuse (including tins and scrap iron, in the Parish of Easebourne, the Contractor, traversing the chief streets every Friday between 7.30 a.m. and 10.30 a.m.; also contracted for the removal of house refuse (including tins and scrap iron) in the villages of South and East Harting, and further, for the cleansing of earth closets, privies, and cesspools. The house refuse is collected from moveable receptacles, and earth closets with moveable receptacles are cleansed every alternate Friday between the hours of 7.30 a.m and 12 noon.

### WATER SUPPLY.

The works of Water Supply for the Parish of Midhurst are nearing completion, and the water will be available for the supply of houses in the early spring.

### PROCEEDINGS BEFORE THE MAGISTRATES.

Proceedings were taken against four persons for infringement of By-laws relating to tents, vans, and sheds. Penalties were imposed in each case.

In September, proceedings were taken for the abatement of a nuisance caused in the keeping of pigs. An order was made for the pig pen to be properly paved and drained within one month, and the defendant to pay all costs of proceedings.

## BAKEHOUSES.

The bakehouses throughout the district are very well kept, and in no case is there any drain within the building; they are limewashed twice a year.

## SLAUGHTER HOUSES.

The ten slaughter houses are very fairly kept, and any refuse or offal is removed as soon as possible; the walls are regularly limewashed. Two licenses for the erection of slaughter houses were refused as being too near dwellings.

## ARTICLES OF FOOD

No Article of Food was condemned during the year.

## INQUESTS.

Inquests were held in eleven cases:—Male, 26 years, pneumonia, syncope; male, 32 years, pulmonary tuberculosis; female, 2 days, hemorrhage on the brain; male, 39 years, suicide by opium poisoning; female, 13 years, syncope, following effusion consequent on chronic pericarditis; male, 73 years, heart failure; female, 74 years, pneumonia supervening on burns accidentally sustained by falling on a fire; male, 59 years, accidentally crushed between a truck attached to a traction engine and a wall; male, 68 years, drowned in a stream; male, 36 years, acute congestion of left lung and heart failure; male, 4 years, accidentally burnt.

There were two deaths returned as “not certified,” during the year:—Male, 1 hour, prematurely born; male, 72 years, heart failure.



## MIDHURST RURAL DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the fifteen years, 1881-95 and in 1896-99.

Period.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1881-85 ...	1,096	184	111	64	65	306	366
1886-90 ...	1,001	150	88	43	45	285	390
1891-95 ...	1,092	179	93	54	60	298	408
Per 1,000 ...	1,000	161	92	50	53	279	365
1896... ..	156	27	18	16	8	32	55
1897... ..	191	34	8	3	14	52	80
1898... ..	184	26	11	11	10	55	71
1899... ..	188	28	14	8	9	52	77

TABLE 2.—Showing the Deaths from various causes in the twenty years, 1876-95, and in 1896-99.

Period.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1876-80 ...	4	3	14	—	1	10	2	—	1	—	3	7	17	12	5	—	79
1881-85 ..	6	22	27	—	—	10	—	—	1	—	10	7	13	10	4	—	110
1886-90 ...	—	2	12	—	—	12	—	—	2	—	1	11	23	5	4	5	77
1891-95 ...	—	1	28	2	—	9	—	—	—	—	4	12	19	3	3	60	141
1896 ... ..	—	—	1	—	—	2	—	—	—	—	—	—	10	—	1	4	18
1897 ... ..	—	—	—	—	—	2	—	—	—	—	1	1	1	3	2	4	14
1898 ... ..	—	—	7	—	—	—	—	—	—	—	1	—	—	5	—	13	26
1899 ... ..	—	1	1	—	—	4	—	—	—	—	—	—	4	3	—	8	21
Total ...	10	29	90	2	1	49	2	—	4	—	20	38	87	41	19	94	486

## MIDHURST RURAL DISTRICT.

TABLE 3.—Showing the Death-rate per 100,000 persons living from all causes, and from various causes, in different localities, during the twenty years, 1876-95, and the Death-rate in 1896-99.

LOCALITY.	All Diseases.	Notifiable.	Non-notifiable.	Phthisis.	Lung Disease.	Heart Disease.
Midhurst Parish ..	1,700	57	63	188	230	170
Easebourne Parish ..	1,390	74	41	131	156	127
Rest of Midhurst S.D. . .	1,496	69	49	156	194	161
Fernhurst Sub-District	1,423	78	68	137	213	165
Harting Sub-District ..	1,521	59	53	110	215	152
Mean .. ..	1,494	66	55	138	203	155
PERIOD.						
1876-80 .. ..	1,552	55	60	174	170	182
1881-85 .. ..	1,540	107	48	143	211	147
1886-90 .. ..	1,356	40	60	128	207	150
1891-95 .. ..	1,529	61	52	105	225	141
1896 .. ..	1,204	21	76	62	153	167
1897 .. ..	1,326	21	48	146	76	167
1898 .. ..	1,276	55	35	111	152	111
1899 .. ..	1,301	41	49	90	138	145

(A)—Table of DEATHS during the Year 1899, in the MIDHURST

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2	3
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and up-wards. (h)		Small Pox. .....	Scarlatina. .....	Diphtheria. .....
Midhurst Parish... ..	22	4	2	3	2	5	6	Under 5 ..... 5 upwards.			
Easebourne Parish ... ..	9	—	—	1	1	1	6	Under 5 ..... 5 upwards.		1	
Rest of Midhurst Sub-District..	55	6	3	1	2	18	25	Under 5 ..... 5 upwards.			1
Fernhurst Sub-District ... ..	16	3	1	1	1	6	4	Under 5 ..... 5 upwards.			
Harting Sub-District ... ..	70	15	8	—	1	20	26	Under 5 ..... 5 upwards.			
Easebourne Workhouse ... ..	16	—	—	2	2	2	10	Under 5 ..... 5 upwards.			
								Under 5 ..... 5 upwards.			
								Under 5 ..... 5 upwards.			
								Under 5 ..... 5 upwards.			
								Under 5 ..... 5 upwards.			
TOTALS.....	188	28	14	8	9	52	77	Under 5 ..... 5 upwards.		1	1

The subjoined numbers have also to be taken into

Deaths occurring outside the District among persons belonging thereto.....							Under 5 ..... 5 upwards.			
Deaths occurring within the District among persons not belonging thereto...							Under 5 ..... 5 upwards.			



## RURAL DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	FEVERS.																	
Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Influenza.	Injuries.	All Other Diseases.	Total.
									3								3	6
												4	3	3			6	16
																	—	—
													1	1		1	5	9
										1			2				6	9
		2										3	6	7	3		24	46
																	4	4
												2		1	2	1	6	12
									1	1			4		1	1	15	23
		1								1		4	3	7	2	2	27	47
																	—	—
		1											1	2			12	16
									4	2			6		1	1	28	42
		4								1		13	14	21	7	4	80	146

ount in judging of the above records of mortality.

[illegible]

## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the MIDHURST

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICK- COMING TO THE KNOWLEDGE OF					
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5	6
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.	
									Typhus.	Enteric or Typhoid.
(a)	(b)	(c)	(d)	(e)						
Midhurst Parish ... ..	1,674	1,720	33	Under 5 ..... 5 upwards.		1 2	1 3			7
Easebourne Parish ... ..	1,296	1,450	30	Under 5 ..... 5 upwards.		4	1			2
Rest of Midhurst Sub-District	3,769	3,810	87	Under 5 ..... 5 upwards.		7 20		8		6
Fernhurst Sub-District ...	2,514	2,520	52	Under 5 ..... 5 upwards.		2 4				1
Harting Sub-District ... ..	4,887	4,850	124	Under 5 ..... 5 upwards.		5	2			2
Easebourne Workhouse ...	96	100	—	Under 5 ..... 5 upwards.		1				
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
TOTALS .....	14,236	14,450	326	Under 5 ..... 5 upwards.		10 36	1 14			18



F INFECTIOUS SICKNESS, coming to the knowledge of the Medical  
 ural District; classified according to DISEASES, AGES, and LOCALITIES.

DISEASES IN EACH LOCALITY, OF THE MEDICAL OFFICER HEALTH.							NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.												
7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
FEVERS.							FEVERS.												
Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.			Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing.	Puerperal.	Chole a.	Erysipelas.		
				1															
				2															
				1															
				2															
				1															



# WESTBOURNE RURAL DISTRICT.

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pp. 131 et seq.

## WESTBOURNE RURAL DISTRICT.

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The population in this registration district was 6,669 at the census of 1841, and 6,944 in 1851; it then rose steadily up to 1881, since which period it has declined; this decrease is not to be accounted for by any change in area.

The following figures relate to the present rural sanitary area which is co-extensive with the registration district:—

	1861.	1871.	1881.	1891.
Area in Statute Acres ..	—	32,886	32,040	32,040
Number of Inhabited Houses..	1,427	1,495	1,533	1,516
„ Uninhabited „	43	56	66	112
Population .. ..	6,957	7,221	7,420	7,084
Males .. ..	3,502	3,611	3,742	3,552
Females .. ..	3,455	3,610	3,552	3,532
Persons to a House .. ..	4·88	4·83	4·84	4·67

The following table gives the usual information as to the incidence of various diseases in each parish in this district.

In Table 3 the death-rates for various groups of diseases are given for three large parishes and for the rest of the district for a period of fifteen years.

The mean general death-rate for the whole district was 15·0 per 1,000 in the fifteen years 1881-95; there has been very little variation in the general mortality; consumption has apparently decreased, and lung diseases have increased.

All deaths occurring in Westbourne Workhouse have been distributed to each parish whence each inmate came.

Table showing the Deaths from various causes in each Parish in the nineteen years, 1881-99.

PARISH.	Notifiable.								Non-notifiable.				Pthsis.	Lung Disease.	Heart Disease.	All Diseases.	
	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.				Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.					Rheumatic Fever.
					Typhus.	Enteric.	Continued.	Puerperal.									
West Dean ..	—	—	—	—	—	2	—	—	—	2	—	8	3	3	10	170	
East Marden ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	21	
North Marden ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	12	
Up Marden ..	—	—	2	—	—	1	—	—	—	—	—	1	2	—	6	71	
Stoughton ..	—	1	7	—	—	1	—	—	—	1	—	1	—	1	14	165	
Compton ..	—	—	6	—	—	—	—	—	—	1	—	1	—	—	10	85	
Racton.. ..	—	1	—	—	—	1	—	—	—	—	—	1	1	—	2	21	
Funtington ..	—	—	12	—	—	5	—	1	2	2	2	2	4	—	29	294	
Bosham ..	—	—	7	2	2	3	—	—	2	2	2	12	8	1	29	367	
Chidham ..	—	1	2	1	—	1	—	—	—	—	—	4	—	—	4	64	
West Thorney ..	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	22	
Westbourne ..	—	2	19	—	—	9	—	2	2	7	12	13	—	67	52	747	
Total ..	—	5	55	3	—	23	—	3	9	15	43	34	6	152	160	2,039	



## BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 180 children were registered; of these 95 were male, and 85 were female.

Estimating the population in the middle of the year at 6,930, the birth-rate was equal to 26·0 per 1,000 persons living.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

The births and birth-rate during the past ten years have been thus registered :—

Year.	Births.	Birth-rate.	Year.	Births.	Birth-rate.
1890 ..	207	29·1	1895 ..	165	23·6
1891 ..	194	27·4	1896 ..	179	25·7
1892 ..	203	28·8	1897 ..	185	26·7
1893 ..	183	26·0	1898 ..	167	24·1
1894 ..	199	28·3	1899 ..	180	26·0

The mean number of births is 186, and the mean birth-rate is 26·6 per 1,000 of population.

The following table shows the births and birth-rate in each locality during three periods :—

		Birth-rate.		Births.		Birth-rate.	
		1876-84.	1893-97.	1898.	1899.	1898.	1899.
Funtington Parish	..	23·8	22·6	21	20	21·0	20·0
Bosham Parish	..	32·6	27·6	26	40	20·5	31·2
Westbourne Parish	..	29·7	26·3	56	54	23·8	22·3
Rest of Westbourne Dist.		28·4	26·2	64	66	27·8	28·7
Total	..	28·8	26·1	167	180	24·1	26·0

## GENERAL MORTALITY.

There were 111 deaths registered in this district during the year 1899, and of these twelve took place in Westbourne Workhouse. These twelve deaths have been distributed amongst the several parishes whence each inmate came, viz., West Dean 4, Stoughton 2, Compton 1, Funtington 2, and Westbourne 3.

Estimating the population in the middle of the year at 6,930, the death-rate was equal to 16·0 per 1,000 persons living.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 lower than the mean rate in the ten years, 1889-98.

The variations in the death-rate during the past ten years are here shown :—

Year.	Deaths.	Death-rate.	Year.	Deaths.	Death-rate.
1890 ..	97 ..	13·6	1895 ..	110 ..	15·7
1891 ..	124 ..	17·5	1896 ..	97 ..	13·9
1892 ..	116 ..	16·4	1897 ..	90 ..	13·0
1893 ..	126 ..	17·9	1898 ..	86 ..	12·4
1894 ..	106 ..	15·1	1899 ..	111 ..	16·0

The mean number of deaths is 106, and the mean-death rate is 15·1 per 1,000 of population.

There have been during this decade 1,862 births, so that the natural increase of population by excess of births over deaths was 799.

The following table shows the deaths and death-rate in each locality during the past four years :—

	Deaths.				Death-rate.			
	1896.	1897.	1898.	1899.	1896.	1897.	1898.	1899.
Funtington Parish ..	13	5	19	17	13·0	5·0	19·0	17·0
Bosham Parish ..	12	15	13	16	9·4	11·8	10·2	12·5
Westbourne Parish ..	35	45	26	39	14·9	19·1	11·1	16·6
Rest of Westbourne D.	37	25	28	39	15·9	10·9	12·2	17·0
Total ..	97	90	86	111	13·9	13·0	12·4	16·0

In each parish the deaths in 1899 were thus distributed :—

West Dean ..	12 ..	Racton ..	3
East Marden ..	1 ..	Funtington ..	17
North Marden ..	none ..	Bosham ..	16
Up Marden ..	4 ..	Childham ..	2
Stoughton ..	9 ..	West Thorney ..	1
Compton ..	7 ..	Westbourne ..	39
Total ..	111		

### INFANT MORTALITY.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under one year.	Ratio to 1,000 Births.	Ratio. 1887-96	Ratio. 1898
Funtington Parish ..	20	4	200	55	95
Bosham Parish ..	40	3	75	77	154
Westbourne Parish ..	54	7	130	109	71
Rest of Westbourne District	66	3	45	101	109
Total ..	180	17	94	93	102

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000, the mean proportion in the preceding ten years having been 151.

### ZYMOTIC MORTALITY.

The deaths from zymotic diseases were five in the case of those which are notifiable, and six in the other class where the number of cases cannot be obtained.

Adding the two classes together, there is a total of 11 deaths with a zymotic mortality of 1·59 per 1,000.

					Cases.	Deaths.
Fevers.	Small Pox	..	..	..	none	none
	Scarlatina	..	..	..	98	2
	Diphtheria	..	..	..	39	3
	Membranous Croup		..	..	none	none
	Typhus	..	..	..	none	none
	Enteric	..	..	..	13	none
	Continued	..	..	..	none	none
	Relapsing	..	..	..	none	none
	Puerperal	..	..	..	none	none
	Cholera	..	..	..	none	none
	Erysipelas	..	..	..	11	none
Total					161	5

The deaths in the other classes were as follows :—

Measles	..	..	..	..	none
Whooping Cough	..	..	..	..	none
Diarrhœa and Dysentery	..	..	..	..	5
Rheumatic Fever	..	..	..	..	1
Total					6

The prevalence in 1897-99, and in each quarter of 1899 of each infectious disease is shown in the following table :—

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox ..	—	—	—	—	—	—	—
Scarlatina ..	10	19	34	35	98	114	5
Diphtheria ..	—	—	22	17	39	4	28
Membranous Croup	—	—	—	—	—	—	3
Enteric Fever ..	1	3	7	2	13	16	10
Continued Fever ..	—	—	—	—	—	—	—
Puerperal Fever ..	—	—	—	—	—	1	3
Erysipelas ..	4	2	1	4	11	10	5
Total ..	15	24	64	58	161	145	54



The Infectious Disease (Notification) Act, 1889, came into operation in this district on December 31st, 1891. There were 30 cases notified in 1892, 85 in 1893, and 60 in 1894.

The Infectious Disease (Prevention) Act, 1890, was adopted November 13th, 1891, and it came into operation on December 31st, 1891.

SCARLATINA.—The epidemic of scarlatina which began in May, 1898, and was especially prevalent in Westbourne in the autumn of that year, almost ceased early in January, 1899, but it again appeared in April and May, spreading now to other parishes, and becoming more frequent in the autumn in Stoughton and Up Marden, and finally ceasing in December.

The following table shows the number of notified cases in each parish in each month of the two years, 1898-99:—

SCARLATINA CASES, 1898.						SCARLATINA CASES, 1899.							
		East Marden.	Stoughton.	Funtington	Bosham.	Westbourne.	Up Marden.	Stoughton.	Compton.	Racton.	Funtington.	Bosham.	Westbourne.
January ..	..	—	—	—	—	—	—	7	—	—	—	—	1
February ..	..	—	—	1	—	—	—	—	—	—	—	—	1
March ..	..	—	—	—	—	—	—	—	—	—	—	—	1
April ..	..	—	—	1	—	—	—	—	1	3	—	—	2
May ..	..	—	—	—	7	5	1	—	1	—	1	—	3
June ..	..	—	—	—	3	6	—	4	2	1	—	—	—
July ..	..	—	—	—	—	7	—	—	8	5	4	—	3
August ..	..	—	—	—	—	7	—	4	—	—	1	—	7
September ..	..	1	—	—	—	10	1	1	—	—	—	—	—
October ..	..	—	4	—	—	39	10	9	2	—	—	—	—
November ..	..	—	2	—	—	14	—	9	1	—	—	1	2
December ..	..	—	1	—	—	6	—	—	—	—	—	1	—

There must have been a great many more children attacked, but the illness was of so slight a nature that no medical man was called in. One would often go to a cottage and find four or five children playing about at home, sometimes with a rash upon them, sometimes peeling, but seldom ill enough to go to bed.

On visiting a hamlet one day, I went into five houses where there were one or two such cases, and no medical attendance had been sought; on another occasion I found a family of ten children in a cottage in a lonely hamlet; nine had had a rash for three or four days, and then in due course they peeled; it was only when the tenth and eldest girl, who was attacked last, had the disorder in a rather more severe form, that a medical man was called in. It was the singular mildness of the attacks that caused its spread, but if these mild attacks render the individuals more or less immune in the after years, it may indeed prove of much value.

Many thought that removal to the Isolation Hospital would have been of service, but the few beds at one's disposal would have been filled at once by one or two families, and could only have been reoccupied at intervals of six weeks or more.

Moreover, it was the distinct view of the District Council that the Hospital was to be used especially for any one falling ill in the Union Workhouse from any infectious disorder, or for any urgent case, which in my opinion ought to be removed.

The cost of sending a child to the Hospital was, of necessity, an expensive affair.

One family, living in a well-built, isolated cottage, had scarlatina, and six were taken to the Hospital by the desire of the owner, who paid £48 17s. 11d. for their maintenance.

One child was an in-patient for 38 days at a cost to the Guardians of £3 8s. 8d.; another was there for six weeks at a cost of £5 13s. 1d.

A mother and child were taken in for 18 days, and the charge was £3 6s. 10d., which was paid for from a private source. Thus ten persons, mostly children, cost, for maintenance only, £61 6s. 6d., or an average of £6 2s. 6d. per case.

Another difficulty arose from providing medical attendance, because as no medical man lived near, and most of them resided many miles away, it could not be expected that they would care to attend them so far from their homes.

Each house was visited, and the children were kept from school, or attending in any public place; disinfectants were given, the clothes, etc., washed at home, and on recovery, the rooms were cleansed and limewashed.

An account of the age-incidence and death-rate in scarlatina is given in the General Report.

#### LODGING HOUSES.

There is one Common Lodging House at Hermitage in which a few lodgers are taken; this is very well kept.

#### COWSHEDS AND DAIRIES.

There are now twenty registered Cowsheds and Dairies, but many of them are on a very small scale; they are well kept.

## MARGARINE.

Margarine is not much in demand, but in such cases the regulations of the Act are complied with ; the sale seems to decrease.

## BAKEHOUSES.

The Bakehouses are sixteen in number ; they are often inspected, and they are kept in a clean condition ; one new one has been erected, and one old one has been closed ; one which has been disused is now used again.

## SLAUGHTER HOUSES.

There are five Slaughter Houses, which are very well attended to ; three of these are small and used occasionally.

## ARTICLES OF FOOD

There were no cases in which it was necessary to condemn meat or any other Article of Food.

## SUNSHINE.

The following figures have been kindly sent to me by the Rev. L. B. Birkett, M.A., from the observations taken by him at Westbourne Rectory with a Jordan Photographic Recorder.

	1894.	1895.	1896.	1897.	1898.	1899.
	Hours.	Hours.	Hours.	Hours.	Hours.	Hours.
January ..	86·3 ..	93·7 ..	52·6 ..	50·7 ..	38·9 ..	76·4
February ..	96·4 ..	123·3 ..	76·9 ..	44·5 ..	112·5 ..	127·6
March ..	219·1 ..	159·3 ..	124·5 ..	151·6 ..	108·5 ..	188·9
April ..	188·2 ..	163·0 ..	149·7 ..	153·7 ..	200·1 ..	147·5
May ..	223·3 ..	314·2 ..	275·0 ..	258·8 ..	170·0 ..	244·4
June ..	177·3 ..	248·7 ..	263·4 ..	206·6 ..	186·1 ..	301·5
July ..	192·3 ..	194·2 ..	263·0 ..	263·7 ..	232·4 ..	308·7
August ..	162·5 ..	223·8 ..	170·2 ..	206·8 ..	229·3 ..	308·6
September ..	140·2 ..	248·8 ..	108·1 ..	155·0 ..	243·3 ..	192·8
October ..	96·4 ..	108·6 ..	137·8 ..	165·8 ..	93·4 ..	159·6
November ..	91·1 ..	53·7 ..	97·1 ..	70·1 ..	83·6 ..	63·8
December ..	67·8 ..	51·4 ..	46·6 ..	90·0 ..	52·3 ..	50·1
Total	1,740·9	1,982·7	1,764·9	1,817·3	1,750·4	2,169·9

There were 46 sunless days.

The above figures for 1899 taken from the Meteorological office differ from the totals sent to me by the observer, who puts the total sunshine for the year at 2230·5 hours.



In 1890, there were 1,773·8 hours of bright sunshine, and 68 sunless days; in 1891, the numbers were 1,682·8 and 61; in 1892, the numbers were 1,859·8 and 52; and in 1893, the numbers were 2,070·0 and 54 respectively.

### RAINFALL.

	1894.		1895.		1896.		1897.		1898.		1899.
	Amount in inches.		Amount in inches.		Amount in inches.		Amount in inches.		Amount in inches.		Amount in inches.
January	5·37	..	2·99	..	1·17	..	2·69	..	0·78	.	3·66
February	2·01	..	0·19	..	0·47	..	4·09	..	1·98	..	3·05
March	1·65	..	2·13	..	3·44	..	4·15	..	0·80	..	0·79
April	2·26	..	2·25	..	0·31	..	2·32	..	1·14	..	2·95
May	1·01	..	0·18	..	0·49	..	1·42	..	3·58	..	0·88
June	1·75	..	0·70	..	1·75	..	3·23	..	2·67	..	1·07
July	5·38	..	4·78	..	0·90	..	0·67	..	0·45	..	1·91
August	2·14	..	3·23	..	1·91	..	4·39	..	1·36	..	0·88
September	3·19	..	0·92	..	8·34	..	2·60	..	1·69	..	2·46
October	6·10	..	3·43	..	3·40	..	0·45	..	3·79	..	2·81
November	5·96	..	5·34	..	1·00	..	1·68	..	4·70	..	4·52
December	2·22	..	2·20	..	4·56	..	3·44	..	3·28	..	1·82
	<hr/> 39·04		<hr/> 29·34		<hr/> 27·74		<hr/> 31·13		<hr/> 26·22		<hr/> 26·80

There were 151 days on which rain fell.

The rainfall in 1890 amounted to 24·13in., in 1891 to 35·94in., in 1892 to 26·05in., and in 1893 to 27·75in.

Diameter of gauge, 5in. Height above ground, 1ft. 6in.; above sea level, 30ft.

### INQUESTS.

Inquests were held in fourteen cases:—Male, 2 years, pneumonia following accidental burns; male, 56 years, syncope, arising from a weak and dilated heart; male, 21 years, injuries to skull by a timber waggon accidentally passing over him; male, 71 years, concussion of the brain due to a straw stack, on which he was working, accidentally falling with him; female, 62 years, rupture of a blood vessel in the brain, paralysis; female, 5 months, broncho-pneumonia; male, 22 years, accidentally run over by a train; male, 57 years, heart disease; male, 29 years, accidental fall from a signal post on the railway; male, 4 months, diarrhœa; male, 2 years, rickets, diarrhœa; male, 51 years, suicide by cutting throat with a razor; female, 50 years, cirrhosis of the liver; female, 1 month, natural causes, congestion of the lungs.

There were no deaths returned as “not certified” during the year.

## WESTBOURNE RURAL DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the fifteen years, 1881-95 and in 1896-99.

Year.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1881-85 ...	551	91	42	33	23	152	210
1886-90 ...	522	90	45	16	25	140	206
1891-95 ...	582	105	48	42	23	141	223
Per 1,000 ...	1,000	173	82	55	43	261	386
1896... ..	97	10	7	4	7	32	37
1897... ..	90	21	5	2	5	23	34
1898... ..	86	17	3	3	2	18	43
1899... ..	111	17	9	3	8	30	44

TABLE 2.—Showing the Deaths from various causes in the fifteen years, 1881-95, and in 1896-99.

Year.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1881-85 ...	—	1	18	—	—	12	—	—	1	—	4	1	9	6	—	—	52
1886-90 ..	—	—	4	—	—	7	—	—	—	—	1	6	17	3	1	3	42
1891-95 ...	—	—	26	2	—	3	—	—	1	—	3	8	9	12	4	38	106
1896 ...	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	2	4
1897 ...	—	—	2	1	—	1	—	—	—	—	1	—	5	5	—	1	16
1898 ...	—	2	—	—	—	—	—	—	1	—	—	—	3	3	—	4	13
1899 ...	—	2	3	—	—	—	—	—	—	—	—	—	—	5	1	10	21
Total ...	—	5	55	3	—	23	—	—	3	—	9	15	43	34	6	58	254

## WESTBOURNE RURAL DISTRICT.

TABLE 3.—Showing the Death-rate per 100,000 persons living from all causes, and from various causes, in different localities, during the fifteen years, 1881-95, and the Death-rate in 1896-99.

LOCALITY.				All Diseases.	Notifiable.	Non-notifiable.	Phthisis.	Lung Disease.	Heart Disease.
Funtington Parish	..			1,538	115	58	115	308	128
Bosham Parish	..			1,645	74	90	106	291	122
Westbourne Parish	..			1,645	79	60	156	344	115
Rest of District	..			1,371	60	76	112	257	93
Mean	..	..		1,501	77	71	123	293	107
PERIOD.									
1881-85	..	..	..	1,473	98	43	123	261	117
1886-90	..	..	..	1,376	33	75	136	279	97
1891-95	..	..	..	1,653	99	94	111	338	108
1896	..	..	..	1,395	29	—	100	201	86
1897	..	..	..	1,300	72	145	29	116	159
1898	..	..	..	1,243	43	87	43	173	188
1899	..	..	..	1,600	72	87	43	245	159



(A)—Table of DEATHS during the Year 1899, in the WESTBOURNE DISTRICT.

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and upwards. (h)		Small Pox. (j)	Scarlatina. (k)
Funtington Parish ... ..	15	4	—	—	1	4	6	Under 5 ..... 5 upwards.		
Bosham Parish ... ..	16	3	—	—	2	5	6	Under 5 ..... 5 upwards.		
Westbourne Parish ... ..	36	7	3	1	2	11	12	Under 5 ..... 5 upwards.		
Rest of District ... ..	32	3	6	2	3	10	8	Under 5 ..... 5 upwards.		2
Westbourne Workhouse ...	12	—	—	—	—	—	12	Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
TOTALS .....	111	17	9	3	8	30	44	Under 5 ..... 5 upwards.		2
The subjoined numbers have also to be taken into consideration.										
Deaths occurring outside the District among persons belonging thereto.....								Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...								Under 5 ..... 5 upwards.		

URAL DISTRICT, classified according to DISEASES, AGES, and LOCALITIES

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
 UNDER FIVE YEARS OF AGE.

[illegible]

nt in judging of the above records of mortality.

[illegible]

(B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF SICKNESS  
 Officer of Health, during the year 1899, in the WESTBOURNE DISTRICT.

Names of Localities adopted for the purpose of these Statistics ; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS COMING TO THE KNOWLEDGE OF THE OFFICER OF HEALTH.					
	Last Census	Esti- mated middle of 1899.			1	2	3	4	5	
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric fever.
(a)	(b)	(c)	(d)	(e)						
Funtington Parish ... ..	1,020	1,000	20	Under 5 ..... 5 upwards.		1 ..... 5		1		
Bosham Parish ... ..	1,258	1,280	40	Under 5 ..... 5 upwards.			2	1		
Westbourne Parish ... ..	2,269	2,240	54	Under 5 ..... 5 upwards.		8 ..... 11	1	3		
Rest of Westbourne District...	2,397	2,300	66	Under 5 ..... 5 upwards.		14 ..... 56	5	28		
Westbourne Workhouse ..	140	110	—	Under 5 ..... 5 upwards.			1			
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
				Under 5 ..... 5 upwards.						
TOTALS .....	7,084	6,930	180	Under 5 ..... 5 upwards.			23 ..... 75	6 ..... 33		



INFECTIOUS SICKNESS, coming to the knowledge of the Medical District; classified according to DISEASES, AGES, and LOCALITIES.

[illegible]

# WORTHING URBAN DISTRICT.

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pp. 147 et seq

## WORTHING URBAN DISTRICT.

	1861.	1871.	1881.	1891.
Area in Statute Acres ..	584	584	979	1,425
Number of Inhabited Houses..	1,051	1,331	1,959	3,015
„ Uninhabited „	51	129	178	174
„ Building „	7	11	82	39
Population .. ..	5,805	7,413	10,976	16,606
Males .. ..	2,497	3,174	4,701	6,874
Females .. ..	3,308	4,239	6,275	9,732
Persons to a House .. ..	5.52	5.57	5.51	5.51

The area of this Urban Sanitary District was extended to include the civil parish of Heene, and the District was incorporated as a Municipal Borough by a charter dated 15th August, 1890.

The above figures, previous to 1891, only deal with the old Local Board District of Worthing.

When, on September 3rd, 1890, Worthing became a Municipal Borough, the whole area was divided into five wards.

The mean number of persons in each house in each ward at the last census is here shown :—

	Houses.	Mean No. of Inmates per House.
1. East Ward .. ..	510	5.4
2. Central Ward .. ..	1,091	5.7
3. North-east Ward .. ..	566	5.6
4. North-west Ward .. ..	575	5.0
5. West Ward .. ..	273	6.1
Total .. ..	3,015	5.5



## BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 368 children were registered; of these 196 were male, and 172 were female.

Estimating the population in the middle of the year at 21,600, the birth-rate was equal to 17·0 per 1,000 persons living, against a rate of 23·4 in 1891, 22·4 in 1892, 21·4 in 1893, 19·2 in 1894, 19·6 in 1895, 20·2 in 1896, 17·2 in 1897, and 18·2 in 1898.

The rate varies very much in each Ward, and it depends upon the distribution of married women living at the child-bearing ages. For this reason the rate is low in the West Ward, and high in the North-east and North-west Wards.

In each Ward the births for the past five years are here shown :—

No.	Ward.	1895.	1896.	1897.	1898.	1899.
1.	East .. ..	62	89	93	75	83
2.	Central .. ..	118	110	83	98	99
3.	North-east ..	55	69	62	72	71
4.	North-west ..	101	101	78	106	84
5.	West .. ..	26	19	30	24	31
Total ..		362	388	346	375	368

The general birth-rate is low, and it has been steadily declining for several years.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

It is of interest to compare the variations in the birth-rate during the last ten years under the Local Board, bearing in mind that the addition of the West Ward has slightly helped to lower the rate.

Year.	Births.	Birth-rate	Year.	Births.	Birth-rate.
1881 ..	324	29·2	1886 ..	366	27·7
1882 ..	355	30·7	1887 ..	327	24·5
1883 ..	313	25·7	1888 ..	322	23·3
1884 ..	352	27·8	1889 ..	362	25·6
1885 ..	327	25·0	1890 ..	338	23·1

## GENERAL MORTALITY.

There were 315 deaths registered in this district during the year 1899, but to this number must be added the deaths of seventeen persons belonging to this district in East Preston Workhouse, and of six children at Swandean, Durrington, which occurred outside the area. From this total number of 338 there must be deducted the death of four persons in the Worthing Infirmary, who came from outside the district, leaving a total of 334 deaths.

The deaths of 34 visitors were registered.

Estimating the population in the middle of the year at 21,600, the death-rate was equal to 15·5 per 1,000 persons living; excluding persons not belonging to the district, the rate was equal to 13·9 per 1,000.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 lower than the mean rate in the ten years, 1889-98.

The variations in the death-rate in the Local Board District during the ten years previous to 1891 are here shown :—

Year.	Deaths.		Death-rate.	
	Including Visitors.	Excluding Visitors.	Including Visitors.	Excluding Visitors.
1881.....	170	150	15·3	13·5
1882.....	160	142	13·8	12·3
1883.....	164	151	13·4	12·4
1884.....	205	177	16·2	14·0
1885.....	178	161	13·6	12·3
1886.....	228	210	17·2	15·9
1887.....	231	206	17·3	15·4
1888.....	220	187	15·9	13·5
1889.....	179	145	12·6	10·2
1890.....	218	181	14·9	12·3

The following tables show the deaths in each Ward occurring in a population estimated in the middle of the year at 21,600; it includes the deaths of all persons not belonging to the district, and also the seventeen workhouse deaths, and the six deaths at Swandean. The corresponding figures for the four previous years are also given.

#### DEATHS.

No.	Ward.	1895.	1896.	Deaths. 1897.	1898.	1899.
1.	East .. ..	44	54	55	44	60
2.	Central .. ..	100	92	78	70	112
3.	North-east .. ..	41	55	55	50	58
4.	North-west .. ..	71	78	54	58	70
5.	West .. ..	32	20	30	30	34
		288	299	272	252	334

The mortality in each quarter of the past five years is here shown :—

		Total. 1895.	Total. 1896.	Total. 1897.	Total. 1898.	Total. 1899.	M.	F.
First Quarter	..	97	80	74	67	72	28	44
Second Quarter	..	60	65	64	58	71	34	37
Third Quarter	..	62	70	69	72	105	52	53
Fourth Quarter	..	69	84	65	55	86	39	47
		<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
		288	299	272	252	334	153	181

The deaths in each quarter at various groups of years are here shown :—

		Under 1 year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and over.	Total.
First Quarter	..	11	4	1	4	27	25	72
Second Quarter	..	10	3	1	3	26	28	71
Third Quarter	..	36	9	6	4	21	29	105
Fourth Quarter	..	12	3	5	2	30	34	86
Total..	..	69	19	13	13	104	116	334

### INFANT MORTALITY

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

No.	Ward.	Births.	Deaths. under one year.	Ratio to 1,000 Births	Ratio in			
					1895.	1896.	1897.	1898.
1.	East ..	83	15	181	97	101	129	160
2.	Central ..	99	23	232	93	191	120	61
3.	North-east	71	14	197	145	116	81	111
4.	North-west	84	15	180	128	109	141	101
5.	West ..	31	2	64	423	210	166	250
	Total ..	368	69	187	135	136	124	115

The mean ratio for the past five years is 175 deaths to 1,000 births.

The rate of infant mortality in the Local Board District for the ten years, 1881-90, was in :—

Year.	Ratio.	Year.	Ratio
1881 ..	86	1886 ..	147
1882 ..	95	1887 ..	100
1883 ..	105	1888 ..	93
1884 ..	122	1889 ..	77
1885 ..	88	1890 ..	136

giving a mean ratio for that decade of 105 deaths to 1,000 births.

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000 during the past year, the mean proportion in the preceding ten years having been 151.



## ZYMOTIC MORTALITY.

The deaths from zymotic diseases were 9 in the case of those which are notifiable, and 17 in the other class where the number of cases cannot be obtained, or a total of 26 deaths in all, with a zymotic mortality of 1.20 per 1,000.

				Cases.	Deaths.
	Small Pox	..	..	none	none
	Scarlatina	..	..	30	none
	Diphtheria	..	..	30	6
	Membranous Croup	..	..	none	none
Fever.	Typhus	..	..	none	none
	Enteric	..	..	11	1
	Continued	..	..	none	none
	Relapsing	..	..	none	none
	Puerperal	..	..	none	none
	Cholera	..	..	none	none
	Erysipelas	..	..	15	2
	Total	..	..	86	9

The deaths in the other classes were as follows :—

Measles	..	..	..	none
Whooping Cough	..	..	..	1
Diarrhoea and Dysentery	..	..	..	16
Rheumatic Fever	..	..	..	none
Total	..	..	..	17

There were eleven deaths from Influenza during the year.

The Infectious Disease (Notification) Act, 1889, came into force on August 3rd, 1890.

The Infectious Disease (Prevention) Act, 1890, came into operation on July 4th, 1891.

The Public Health Acts Amendment Act, 1890, came into operation on July 4th, 1891.

The prevalence in 1897-99, and in each quarter of 1899 of each infectious disease is shown in the following table :—

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox..	—	—	—	—	—	—	—
Scarlatina ..	11	2	5	12	30	157	44
Diphtheria ..	5	1	14	10	30	23	54
Membranous Croup	—	—	—	—	—	—	—
Enteric Fever ..	—	3	3	5	11	3	6
Continued Fever ..	—	—	—	—	—	—	—
Puerperal Fever ..	—	—	—	—	—	—	4
Erysipelas ..	3	4	2	6	15	4	10
Total ..	19	10	24	33	86	187	118

Nearly all the Scarlatina cases, and many of the Diphtheria cases were at once removed to the Swandean Isolation Hospital, and an account of them is given in the General Report.

## WATER SUPPLY.

The following report, dated December 7th, 1899, gives the result of an analysis by Dr. Dupré, F.R.S., showing the excellent quality of the new water supply.

**CHEMICAL EXAMINATION.**—The water is clear and yields no deposit on standing; it is of moderate hardness, and becomes soft on boiling. The chemical characteristics (small amount of oxygen absorbed, moderate proportion of chlorine and of nitric acid, minute trace only of phosphoric acid, no ammonia, small amount of albuminoid ammonia, absence of blackening on heating the dry residue), correspond in all respects to those of a pure unpolluted chalk water. The water is chemically of great purity, and admirably adapted to serve as a town supply both for drinking and domestic use generally.

**BACTERIOLOGICAL EXAMINATION.**—*General*: The number of organisms of all kinds present in the water amounted, on an average of a number of trials, to 60 per cubic centimetre, an extremely satisfactory result.

*Special*: Two litres of water were filtered through a sterilized Pasteur filter, and the material retained on the filter tested for pathogenic organisms generally, and especially for typhoid, bacillus, and bacillus coli communis, but none such organisms could be detected. This bacteriological examination thus fully bears out the conclusions drawn from the chemical examination.

The water is, both from a chemical and bacteriological point of view, free from any suspicion of pollution by sewage or surface drainage, and is admirably adapted to serve as a water supply for the town of Worthing.

Appearance	..	..	..	..	clear
Colour	..	..	..	..	pale bluish green
Smell	..	..	..	..	none
Deposit	..	..	..	..	none
Nitrous acid	..	..	..	..	none
Phosphoric acid	..	..	..	..	minute trace
Poisonous metals	..	..	..	..	none
Hardness before boiling	..	..	..	..	15·5 degrees, Clark
„ after	..	..	..	..	3·5 „ „

	Grains per gallon.
Oxygen absorbed from permanganate ..	0·015
Total dry residue .. .. .	21·56
Colour of „ .. .. .	white
Behaviour „ .. .. .	blackens scarcely perceptibly
On ignition .. .. .	burns off readily
Chlorine .. .. .	1·54
Nitric acid .. .. .	1·50
Ammonia .. .. .	0·0000
Albuminoid ammonia .. .. .	0·0014
	Micro-organisms per cubic centimetre.
Total number .. .. .	60
Bacillus coli communis .. .. .	none
Typhoid bacillus .. .. .	none

### SYSTEMATIC INSPECTION.

The following is Mr. Gardner's Ninth Annual Report showing the work carried on in this department during the year ending 31st December, 1899.

The usual systematic inspection and routine work in connection with common Lodging Houses, 3 ; Slaughter-houses, 5 ; Bakehouses, 28 ; Cowsheds, Dairies, and Milk Purveyor's Premises, 31 ; has been carried out, and the Committee's requirements, where any work was required, have been complied with.

One Slaughter-house in Little High Street has been partly demolished, the owner having transferred the business to new premises in Brougham Road.

Two applications were received for registration as milk purveyors at No. 2, Downview Terrace, Tarring Road, and No. 36, Cranworth Road, and dealt with ; the former premises being suitable, the applicant was placed on the Register ; in the latter case the applicant was informed that the premises being unsuitable could not be registered.

FOOD INSPECTION.—The Butchers, Fish, and Provisions shops, and the Railway Station have been visited to ascertain whether any article of Food was exposed for sale, or in course of preparation for sale, or in transit, which was unfit for human food, and no unsound food of any description was found exposed for sale, or in course of preparation for sale.



My attention was called in two instances where fish had been consigned to fishmongers in Worthing, and when unpacked was found to be unfit for human food; a certificate was given in each case, and the fish was destroyed by consent of the owners.

(1) Three boxes of Plaice.

(2) Sixteen boxes of Mackerel.

MARGARINE ACT.—The provisions of this Act are observed where Margarine is sold.

SALE OF FOOD AND DRUGS ACT.—No samples of Food or Drugs were purchased for analysis under this Act, as the work is done by the County Council through the Police.

HOUSING OF THE WORKING CLASSES ACT.—Four houses were reported as unfit for human habitation; three have been rendered habitable, and one has been permanently closed.

COMPLAINTS.—Thirty-five complaints have been received and investigated, and notices served for the abatement of nuisances and remedying of sanitary defects where found, the following should be especially mentioned.

Attention has been given during the year to manure brought to the Goods Station, the trucks are not allowed to stand so long at the Station before they are unloaded, the Railway Company's attention was called to the condition of the road where this material is unloaded, and the roadway has been metalled.

Sixteen written applications were received under Section 41 of the Public Health Acts relative to the Drainage of 56 houses, viz.:—

High Street	..	1 houses.	Lyndhurst Road	..	1 houses.
Warwick Place	..	2 „	St. Botolphs Road	..	2 „
Tarring Road	..	2 „	Newland Road	..	3 „
Grafton Road	..	4 „	Clifton Road	..	10 „
Buckingham Road	..	2 „	Graham Road	..	2 „
Orme Road	..	8 „	Tarring Road (East)	5 „	
Herne Road	..	6 „	Tarring Road (East)	6 „	
Rowland Road	..	1 „	Graham Road	..	1 „

ARREARS OF WORK UNDER SECTION 41.—Proceedings were pending at the close of 1898 with respect to eight similar applications relating to the drainage of 33 houses and premises, and the work has been carried out, viz.:—

Nineteen houses, included in 6 applications, have been completed.

Fourteen premises, included in 2 applications, have not been further dealt with.

Montague Street ..	10 houses.	Shakespeare Road ..	2 houses.
Crescent Road ..	4 „	Buckingham Road ..	5 „
Hertford Road ..	3 „	Warwick Street ..	4 „
Wenban Road ..	2 „	South Street ..	3 „

CONTAGIOUS DISEASES ANIMALS ACT.—Assistance was rendered to the County Authority on two occasions on the outbreak of infectious disease amongst cattle, one within the Borough, and the second case some infected carcasses were found to have been brought in from an adjoining district. In each case a large quantity of infected material was destroyed, and the premises were thoroughly disinfected and cleansed.

NOTIFIABLE DISEASES.—Eighty-six cases were inquired into, and where necessary, disinfectants were supplied free of charge to poor people. The house drains were flushed by the fire-hose free of cost in each case.

Forty-six cases were removed to Swandean, and the premises disinfected immediately the patients had left their houses. At each house where infectious disease have occurred an examination was made of the drains and sanitary fittings, and where defects existed they have been remedied.

Where necessary, advantage was taken of the Infectious Disease Prevention Act, and sixteen houses were cleansed.

By verbal or written request 25 premises were cleansed.

The cost of disinfectants was :—

	£	s.	d.
Fumigating Material .. ..	4	18	0
Disinfecting Fluid .. ..	3	5	0
Disinfecting Appliances .. ..	4	11	0
	<hr/>		
	£12	14	0
	<hr/>		

The cost to the authority for Instruments, Drain Testing Material, etc., for the year in this Department was £2 10s.

PUBLIC ELEMENTARY SCHOOLS.—The ten Elementary Schools were examined during the year, in two the drainage was found to be defective, in one case the whole of the system was reconstructed and a new connection made to the sewer, in the other case a new sewer was constructed, and nearly all the system of drains was reconstructed with two new connections to the public sewer.

All these schools, with the exception of St. Andrew's, were thoroughly disinfected during the Christmas Holidays, by consent of the managers, as a precautionary measure.

WATER INSPECTION.—Two sets of samples of water were taken for analysis, and the reports on the same were sent to your Committee. Both were taken from the Waterworks at Broadwater.

One local well was abolished, and the town water laid on to the house supplied by same, and the well subsequently filled up.

HOUSE TO HOUSE SURVEY.—This work has been proceeded with as occasion permitted during the year. A tabulated report on one section of the North-east and one section of the North-west Ward, and final report on the first section of the East Ward, were presented to the Committee, showing the result of the work that has been done in these districts since the survey was commenced.

#### INQUESTS.

Inquests were held in nineteen cases:—Female, 41 years, angina pectoris; female, 84 years, pneumonia and bronchitis; female, 34 years, hemorrhage on brain; female, 64 years, found dead on bed, no marks of violence; male, 44 years, accidental fall; male, 4 years, accidentally drowned by falling into a pond of water; female, 1 day, accidentally suffocated while in bed with her mother; male, 2 days, convulsions induced by premature birth; female, 24 years, accidentally burnt; female, 87 years, senile decay; male, 28 years, suicide by shooting himself with a revolver; female, 65 years, internal cancer; female, 33 years, rupture of an aneurism during childbirth; female, 55 years, accidental fall during an epileptic fit; male, 58 years, heart disease; male, 10 years, disease of the intestine; female, 8 years, accidentally burnt; female, 43 years, suicide by cutting her throat with a knife; male, 21 years, syncope while bathing.

There were three deaths returned as “not certified” during the year:—Male, 52 years, heart disease; female, 81 years, heart disease; female, 5 minutes, premature birth.



WORTHING URBAN DISTRICT.

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TABLE 1.—Showing the Deaths at various groups of ages in the  
ten years, 1886-95, and in 1896-99.

Year.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1886-90 ...	1,076	191	122	44	55	339	325
1891-95 ...	1,525	227	140	94	124	493	447
Per 1,000 ...	1,000	160	101	53	69	320	297
1896... ..	299	53	43	33	5	77	87
1897... ..	272	43	31	16	6	86	90
1898... ..	252	43	14	6	11	90	88
1899... ..	334	69	19	13	13	104	116

WORTHING URBAN DISTRICT.

TABLE 2.—Showing the Deaths from various causes in the twenty years, 1876-95, and in 1896-99.

Year.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1876-80* ...	—	19	7	—	—	7	1	—	3	—	1	13	25	28	2	—	106
1881-85* ...	—	7	8	—	—	9	—	—	1	—	2	13	8	21	5	—	74
1886-90* ...	—	8	11	—	—	6	—	—	—	—	3	7	46	22	2	—	105
1891-95† ...	—	3	34	—	—	175	—	—	2	—	10	44	18	42	1	49	378
1896† ...	—	—	39	1	—	2	—	—	1	—	—	15	4	3	2	2	69
1897† ...	—	2	17	—	—	—	—	—	—	—	—	—	1	7	1	1	29
1898† ...	—	3	2	—	—	—	—	—	—	—	—	—	1	11	—	6	23
1899† ...	—	—	6	—	—	1	—	—	—	—	2	—	1	16	—	11	37
Total ...	—	42	124	1	—	200	1	—	7	—	18	92	104	150	13	69	821

\*Local Board.

†Municipal Borough.

## WORTHING URBAN DISTRICT.

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in the twenty years, 1876-95 and in 1896-99.

PERIOD.	Deaths during the years 1876-99 from						Mean Annual Death-rate per 100,000 living from					
	Population in middle of Period.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	
Including Visitors	1876-80	827	107	90	93	77	1,695	219	184	188	157	
	1881-85	877	74	87	115	98	1,450	122	143	190	161	
	1886-90	1,076	106	111	149	137	1,560	156	161	217	198	
	1891-95	1,525	329	116	184	151	1,747	377	153	212	172	
	1896	299	67	20	32	38	1,557	349	104	166	198	
	1897	272	29	25	21	29	1,348	144	124	104	144	
	1898	252	17	20	19	35	1,223	82	97	92	170	
1899	334	26	27	31	43	1,546	120	125	143	199		
Excluding Visitors.	1876-80	760	99	77	85	71	1,556	203	157	171	145	
	1881-85	781	69	78	105	86	1,291	114	128	173	142	
	1886-90	929	98	78	136	108	1,351	145	115	198	156	
	1891-95	1,358	310	93	166	131	1,552	354	107	190	149	
	1896	276	65	14	31	35	1,437	338	73	161	182	
	1897	247	29	16	21	18	1,229	144	80	104	90	
	1898	222	17	15	18	31	1,078	82	73	87	150	
1899	300	21	21	29	39	1,388	97	97	134	180		



(A)—Table of DEATHS during the Year 1899, in the WORTHIN

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and up-wards. (h)		Small Pox. (j)	Scarlatina. (k)
East Ward ... ..	54	15	7	1	—	17	14	Under 5 5 upwards.		
Central Ward ... ..	99	22	4	3	6	30	34	Under 5 5 upwards.		
North-east Ward ... ..	51	14	—	—	1	18	18	Under 5 5 upwards.		
North-west Ward ... ..	59	14	4	2	2	19	18	Under 5 5 upwards.		
West Ward ... ..	34	2	3	—	1	9	19	Under 5 5 upwards.		
Infirmery ... ..	11	—	—	1	3	5	2	Under 5 5 upwards.		
Swandean... ..	6	—	1	5	—	—	—	Under 5 5 upwards.		
Holy Rood ... ..	2	—	—	—	—	1	1	Under 5 5 upwards.		
St. Mary's Home ... ..	4	—	—	—	1	1	2	Under 5 5 upwards.		
Friends Convalescent Home ...	1	—	—	1	—	—	—	Under 5 5 upwards.		
TOTALS.....	321	67	19	13	14	100	108	Under 5 5 upwards.		
The subjoined numbers have also to be taken										
Deaths occurring outside the District among persons belonging thereto.....	17	2	—	—	—	6	9	Under 5 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...	38	4	2	2	3	13	14	Under 5 5 upwards.		

URBAN DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
FEVERS.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Influenza.	Injuries.	All Other Diseases.	TOTAL.
Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.													
								1	3			4			2	12	22
											6	2	5		2	17	32
									4			3				19	26
	1					1					9	6	13	1	1	41	73
									2							12	14
											2	3	10	2		20	37
									5			3				10	18
						1					3	4	7	1	1	24	41
									2							3	5
											1	5	5	4	1	13	29
																—	—
											1	1		1	2	6	11
																—	1
																—	5
																—	—
														2		—	2
											2					—	—
																2	4
																—	—
													1			—	1
								1	16			10			2	30	86
	1					2					24	21	41	11	7	123	235

ment in judging of the above records of mortality.

											1					1	2
											4		2			9	15
								3								3	6
	1					1					7	3	4	3	1	12	32



## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the WORTHINGTON

Names of Localities adopted for the purpose of these Statistics ; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICK COMING TO THE KNOWLEDGE					
	Last Census	Esti- mated tomid- dle of 1899.			1	2	3	4	5	6
					Small Pox.	Scarlatina	Diphtheria.	Membranous Croup.	FEVERS.	
(a)	(b)	(c)	(d)	(e)					Typhus.	Enteric or Typhoid
East Ward ... ..	2,767	3,875	83	Under 5 5 upwards.		1 2	2			5
Central Ward ... ..	6,269	6,550	99	Under 5 5 upwards.		2 12	2 4			5
North-east Ward .. ...	2,936	3,850	71	Under 5 5 upwards.		3 3				
North-west Ward .. ...	2,917	4,400	84	Under 5 5 upwards.			4 10			
West Ward ... ..	1,692	2,900	31	Under 5 5 upwards.			3 2			
Infirmery ... ..	25	25	—	Under 5 5 upwards.						
Swandean ... ..	—	—	—	Under 5 5 upwards.						
Holy Rood ... ..	—	—	—	Under 5 5 upwards.						
St. Mary's Home .. ..	—	—	—	Under 5 5 upwards.						
Friend's Convalescent Home .	—	—	—	Under 5 5 upwards.						
				Under 5 5 upwards.						
TOTALS .....	16,606	21,600	368	Under 5 5 upwards.		6 24	11 19			



INFECTIOUS SICKNESS, coming to the knowledge of the Medical  
District; classified according to DISEASES, AGES, and LOCALITIES.

[illegible]

# LITTLEHAMPTON URBAN DISTRICT.

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pp. 165 et seq

## LITTLEHAMPTON URBAN DISTRICT.

	1861.	1871.	1881.	1891.
Area in Statute Acres ..	925	925	925	925
Number of Inhabited Houses..	497	624	743	851
„ Uninhabited „	36	52	46	73
„ Building „	3	4	17	15
Population .. .. .	2,350	3,266	3,926	4,452
Males .. .. .	1,112	1,569	1,865	1,962
Females .. .. .	1,238	1,697	2,061	2,490
Persons to a House .. ..	4·73	5·23	5·28	5·23

### BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 116 children were registered; of these 51 were male, and 65 were female.

Estimating the population in the middle of the year at 6,000, the birth-rate was equal to 19·3 per 1,000 persons living.

The variations in the birth-rate during the past ten years are here shown :—

Year.	Births.	Birth-rate.	Year.	Births.	Birth-rate.
1890 ..	89	20·7	1895 ..	110	21·3
1891 ..	93	20·8	1896 ..	107	19·6
1892 ..	81	17·4	1897 ..	130	22·4
1893 ..	105	21·7	1898 ..	115	19·5
1894 ..	98	19·7	1899 ..	116	19·3



The mean annual number of births is 104 and the mean annual birth-rate is 20·2 per 1,000 persons living.

In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

### GENERAL MORTALITY.

There were 92 deaths registered in this district during the year 1899, but to this number must be added the deaths of six persons in the East Preston Workhouse, which is outside the district, and of one person in Worthing Infirmary, making the total of 99 deaths; of these 44 were amongst males, and 55 amongst females.

These 99 deaths include the deaths of nine visitors.

Estimating the population in the middle of the year at 6,000, the death-rate was equal to 16·5 per 1,000 persons living.

In country districts throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

The mean annual number of deaths during the last ten years was 70, and the mean annual death-rate is 13·6 per 1,000 persons living.

The variations in the death-rate during the past ten years are here shown :—

Year.	Deaths.		Death-rate.	
	Including Visitors.	Excluding Visitors.	Including Visitors.	Excluding Visitors.
1890.....	38	37	8·8	8·6
1891.....	84	79	18·8	17·7
1892.....	59	56	12·8	12·0
1893.....	57	56	11·8	11·6
1894.....	72	69	14·5	13·9
1895.....	78	69	15·1	13·4
1896.....	68	62	12·4	11·3
1897.....	71	66	12·2	11·3
1898.....	76	72	12·9	12·2
1899.....	99	90	16·5	15·0

In each Quarter of the past six years the deaths were thus registered :—

	1894.	1895.	1896.	1897.	1898.	1899.
First Quarter ..	21	19	16	20	27	19
Second Quarter ..	13	23	10	11	10	11
Third Quarter ..	13	25	32	18	21	42
Fourth Quarter ..	25	11	10	22	18	27
Total ..	72	78	68	71	76	99

## INFANT MORTALITY.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

Year.		Births.		Deaths under one year.		Ratio to 1,000 Births.
1890	..	89	..	4	..	45
1891	..	93	..	10	..	107
1892	..	81	..	8	..	99
1893	..	105	..	5	..	48
1894	..	98	..	8	..	81
1895	..	110	..	13	..	118
1896	..	107	..	10	..	93
1897	..	130	..	15	..	115
1898	..	115	..	23	..	200
1899	..	116	..	17	..	146
Mean	..	104·4		11·3		105

The seventeen *infantile* deaths included one from whooping-cough, four from diarrhœa, three from convulsions, two from lung disease, four from enteritis, and two from marasmus; one infant was born prematurely.

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000 during the past year, the mean proportion in the preceding ten years having been 151.

## ZYMOTIC MORTALITY.

There were six deaths from zymotic diseases in the case of those which are notifiable, and ten in the other class where the number of cases cannot be obtained. The zymotic mortality was at the rate of 1·46 per 1,000.

				Cases.	Deaths.
	Small Pox	..	..	none	none
	Scarlatina	..	..	10	none
	Diphtheria	..	..	7	3
	Membranous Croup	..	..	none	none
Fevers.	Typhus	..	..	none	none
	Enteric	..	..	10	3
	Continued	..	..	none	none
	Relapsing	..	..	none	none
	Puerperal	..	..	none	none
	Cholera	..	..	none	none
	Erysipelas	..	..	22	none
	Total	..	..	49	6

In the other class the deaths were thus recorded :—

Measles	..	..	..	..	none
Whooping Cough	..	..	..	..	2
Diarrhœa and Dysentery	..	..	..	..	8
Rheumatic Fever	..	..	..	..	none
Total					10

There is no Isolation Hospital in this district.

The Infectious Disease (Notification) Act, 1889, came into operation on March 25th, 1890.

The Infectious Disease (Prevention) Act, 1890, came into operation on March 25th, 1891.

The Public Health Acts Amendment Act, 1890, came into operation on March 25th, 1891.

The prevalence in each quarter of each notifiable disease is shown in the following table :—

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox ..	—	—	—	—	—	—	—
Scarlatina ..	1	1	3	5	10	35	4
Diphtheria ..	1	—	1	5	7	—	—
Membranous Croup	—	—	—	—	—	—	—
Enteric Fever ..	—	1	6	3	10	3	2
Continued Fever ...	—	—	—	—	—	—	—
Puerperal Fever ..	—	—	—	—	—	—	1
Erysipelas ..	1	3	10	8	22	18	10
Total ..	3	5	20	21	49	56	17

### SCAVENGING AND CLEANSING.

The work is well done and the streets are kept very clean and well watered. The health of the town, as usual, was in a very satisfactory condition during the year.

### SLAUGHTER HOUSES, BAKEHOUSES, AND COWSHEDS.

There are 3 Slaughter Houses, 8 Bakehouses, and 6 Cowsheds, and they are periodically inspected and found generally in a well-kept state. The town water is laid on to all these premises.



## CASES OF OVERCROWDING.

There were no cases of overcrowding abated during the year.

## PROCEEDINGS BEFORE THE MAGISTRATES.

No Proceedings were taken before the Magistrates during the year.

## INQUESTS.

Inquests were held in six cases :—Male, 65 years, syncope ; female, 59 years, found drowned in the sea ; female, 43 years, natural causes, convulsive fit ; male, 3 years, accidentally run over by a van ; male, 71 years, rupture of aneurism of the aorta ; female, 54 years, suicide by self-inflicted wounds on wrist and legs with a knife.

There were no deaths returned as “ not certified ” during the year.

## LITTLEHAMPTON URBAN DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the ten years, 1886-95, and in 1896-99.

Year.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1886-90 ...	270	38	25	11	17	78	101
1891-95 ...	350	45	34	19	16	108	128
Per 1,000 ...	1,000	134	95	48	53	300	370
1896... ..	68	10	9	4	1	27	17
1897... ..	71	15	4	1	2	21	28
1898... ..	76	23	4	1	7	21	20
1899... ..	99	17	12	5	5	32	28

TABLE 2.—Showing the Deaths from various causes in the twenty years, 1876-95, and in 1896-99.

Year.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1876-80 ...	—	7	3	—	—	—	—	—	1	—	1	2	1	5	1	—	21
1881-85 ..	—	—	1	—	—	1	3	—	—	—	2	4	4	4	—	—	19
1886-90 ...	1	—	1	—	—	—	—	—	—	—	1	4	8	7	1	1	24
1891-95 ...	—	1	4	—	—	1	—	—	—	—	1	6	8	5	2	—	28
1896 ...	—	—	1	—	—	1	—	—	—	—	—	1	5	—	—	1	9
1897 ...	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	2
1898 ...	—	1	—	—	—	—	—	—	—	—	—	—	1	5	—	3	10
1899 ...	—	—	3	—	—	3	—	—	—	—	—	—	2	8	—	—	16
Total ...	1	9	13	—	—	7	3	—	1	—	5	17	29	35	4	5	129

## LITTLEHAMPTON URBAN DISTRICT.

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in the twenty years, 1876-95 and in 1896-99.

PERIOD.	Deaths during the years 1876-99 from					Mean Annual Death-rate per 100,000 living from						
	Population in middle of Period.	All Diseases.	Zymotic Disease	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	
Including Visitors	1876-80	3,688	261	21	36	34	18	1,416	114	195	184	96
	1881-85	4,000	278	19	26	40	27	1,391	94	130	200	135
	1886-90	4,200	270	23	29	47	27	1,282	110	137	224	128
	1891-95	4,840	350	28	27	45	36	1,460	116	113	189	152
	1896	5,460	68	8	6	9	5	1,245	146	110	165	91
	1897	5,800	71	2	5	14	12	1,224	34	86	241	207
	1898	5,900	76	7	8	16	3	1,288	118	136	277	51
1899	6,000	99	16	5	16	10	1,650	266	83	266	166	
Excluding Visitors.	1876-80	3,688	248	20	32	33	17	1,346	109	174	178	91
	1881-85	4,000	262	16	25	39	25	1,311	79	125	195	125
	1886-90	4,200	250	18	28	46	23	1,187	86	132	219	109
	1891-95	4,840	329	26	23	41	33	1,372	108	97	171	139
	1896	5,460	62	8	5	9	5	1,135	146	91	165	91
	1897	5,800	66	2	4	14	11	1,134	34	69	241	190
	1898	5,900	72	6	7	15	2	1,220	102	118	254	34
1899	6,000	90	16	4	15	9	1,500	266	66	250	150	



(A)—Table of DEATHS during the Year 1899, in the LITTLEHAMPTON

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and upwards. (h)		Small Pox. (j)	Scarlatina. (k)
Littlehampton Urban District	92	17	12	5	4	31	23	Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
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								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
TOTALS.....	92	17	12	5	4	31	23	Under 5 ..... 5 upwards.		
The subjoined numbers have also to be taken										
Deaths occurring outside the District among persons belonging thereto.....	7	—	—	—	1	1	5	Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...	9	—	2	—	2	1	4	Under 5 ..... 5 upwards.		

URBAN DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

[illegible]

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.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
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## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the LITTLEHAMPTON

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICK- COMING TO THE KNOWLEDGE OF					
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5	6
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS. Typhus.	Enteric or Typhoid
(a)	(b)	(c)	(d)	(e)						
Littlehampton Urban District	4,452	6,000	116	Under 5			2			1
				5 upwards.		10	5		9	
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INFECTIOUS SICKNESS, coming to the knowledge of the Medical  
District; classified according to DISEASES, AGES, and LOCALITIES.

[illegible]

ARUNDEL URBAN DISTRICT.

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pp. 177 et seq

## ARUNDEL URBAN DISTRICT.

	1861.	1871.	1881.	1891.
Area in Statute Acres ..	1,969	1,969	1,969	1,969
Number of Inhabited Houses..	528	546	552	550
„ Uninhabited „	23	14	5	20
„ Building „	—	1	1	1
Population .. .. .	2,498	2,956	2,748	2,644
Males .. .. .	1,201	1,466	1,357	1,327
Females ... .. .	1,297	1,490	1,391	1,317
Persons to a House .. ..	4.73	4.31	4.98	4.80

### BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 68 children were registered; of these 43 were male, and 25 were female.

Estimating the population in the middle of the year at 2,640, the birth-rate was equal to 25.7 per 1,000 persons living.

The variations in the birth-rate during the past ten years have been as follows :—

Year.	Births.	Birth-rate.	Year.	Births.	Birth-rate.
1890 ..	79 ..	29.2	1895 ..	76 ..	28.8
1891 ..	59 ..	22.3	1896 ..	77 ..	29.2
1892 ..	69 ..	26.1	1897 ..	78 ..	29.5
1893 ..	78 ..	29.5	1898 ..	69 ..	26.1
1894 ..	76 ..	28.8	1899 ..	68 ..	25.7

The mean annual number of births is 73 and the mean annual birth-rate is 27.5 per 1,000 persons living.



In England and Wales the birth-rate during the year was 29·3 per 1,000 persons living, a rate 1·0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

In each Quarter of the past five years the deaths were thus registered :—

		1895.	1896.	1897.	1898.	1899.
First Quarter	..	15	24	24	14	14
Second Quarter	..	22	12	15	20	22
Third Quarter	..	22	21	18	17	15
Fourth Quarter	..	17	20	21	18	17
		-----	-----	-----	-----	-----
Total..	..	76	77	78	69	68

### GENERAL MORTALITY.

There were 45 deaths registered in this district during the year 1899, but to this number must be added the deaths of three persons in the East Preston Workhouse, which is outside the district, so that the total number of deaths amounts to 48; and of these 20 were male, and 28 were female.

Estimating the population in the middle of the year at 2,640, the death-rate was equal to 18·2 per 1,000 persons living.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

The variations in the death-rate during the past ten years are here shown :—

Year.	Deaths.	Death-rate.	Year.	Deaths.	Death-rate.
1890 ..	70	25·9	1895 ..	32	12·1
1891 ..	51	19·3	1896 ..	32	12·1
1892 ..	45	17·0	1897 ..	49	18·6
1893 ..	46	17·4	1898 ..	49	18·6
1894 ..	32	12·1	1899 ..	48	18·2

Thus there have been during the above period 454 deaths, and a mean annual mortality of 17·1 per 1,000 of population. During the same period there were 729 births, so that the natural increase of population by excess of births over deaths was 275.

# INFANT MORTALITY.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

Year.		Births.		Deaths under one year.		Ratio to 1,000 Births.
1890	..	79	..	18	..	228
1891	..	59	..	11	..	186
1892	..	69	..	4	..	58
1893	..	78	..	9	..	115
1894	..	76	..	6	..	79
1895	..	76	..	3	..	39
1896	..	77	..	8	..	104
1897	..	78	..	11	..	141
1898	..	69	..	7	..	101
1899	..	68	..	8	..	117
Mean	..	73		8.5		117

The eight *infantile* deaths included one from measles, two from diarrhœa, one from brain disease, one from enteritis, and one from debility; two infants were born prematurely.

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000 during the past year, the mean proportion in the preceding ten years having been 151.

# ZYMOTIC MORTALITY.

There was one death from zymotic disease in the case of those which are notifiable, and three in the other class where the number of cases cannot be obtained. The zymotic mortality was at the rate of 1.51 per 1,000.

				Cases.	Deaths.
	Small Pox	..	..	none	none
	Scarlatina	..	..	3	none
	Diphtheria	..	..	4	none
	Membranous Croup	..	..	none	none
Fevers.	Typhus	..	..	none	none
	Enteric	..	..	1	1
	Continued	..	..	none	none
	Relapsing	..	..	none	none
	Puerperal	..	..	none	none
	Cholera	..	..	none	none
	Erysipelas	..	..	2	none
	Total	..	..	10	1

In the other class the deaths were thus recorded :—

Measles	..	..	..	1
Whooping Cough	..	..	..	none
Diarrhœa and Dysentery	..	..	..	2
Rheumatic Fever	..	..	..	none
Total	..	..	..	3

There is no Isolation Hospital in this district.

The Infectious Disease (Notification) Act, 1889, came into operation on May 13th, 1891.

The Infectious Disease (Prevention) Act, 1890, came into operation on March 16th, 1891.

The Public Health Acts Amendment Act, 1890, came into operation on March 16th, 1891.

The prevalence in each quarter of each notifiable disease is shown in the following table :—

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox..	—	—	—	—	—	—	—
Scarlatina ..	—	—	2	1	3	2	3
Diphtheria ..	—	1	2	1	4	6	2
Membranous Croup	—	—	—	—	—	—	—
Enteric Fever ..	—	1	—	—	1	3	4
Continued Fever ..	—	—	—	—	—	—	—
Puerperal Fever ..	—	—	—	—	—	—	—
Erysipelas ..	1	—	—	1	2	2	4
Total ..	1	2	4	3	10	13	13

There were five cases notified in 1891 ; 7 in 1892 ; 52 in 1893 ; 16 in 1894 ; 4 in 1895 ; and 22 in 1896.

## WATER SUPPLY.

The town is supplied with excellent water given by the Duke of Norfolk, who limits the quantity used daily to the liberal amount of 75,000 gallons.



## DRAINAGE AND SEWAGE.

The new system of sewerage which was completed in 1896 is working very satisfactorily.

## BAKEHOUSES.

These are six in number, and they are very well kept. There is no bakehouse on a large scale, and the chief duty is to see that they are frequently cleansed and limewashed. In each case there is a good amount of light and air, and in no instance is there any drain within the building.

## SLAUGHTER HOUSES.

These are five in number, and they are very well kept as regards cleanliness and removal of refuse. The meat in all cases has seemed to be of good quality.

## COMMON LODGING HOUSES.

These are three in number, but the number of inmates is very small. The houses are very well kept.

## PROCEEDINGS BEFORE THE MAGISTRATES.

No legal proceedings were taken during the year.

## RAINFALL.

This table showing the rainfall in each month has been kindly sent to me by Arthur Holmes, Esq., who has made similar observations for many years :—

	1897.		1898.		1899.	
					Fall in inches.	No. of Rainy Days.
January	..	2.84	..	0.91	..	3.31 .. 16
February	..	3.73	..	1.72	..	3.37 .. 10
March ..	..	5.42	..	1.18	..	0.84 .. 5
April ..	..	2.34	..	1.14	..	2.66 .. 14
May ..	..	1.11	..	3.13	..	1.32 .. 6
June ..	..	3.38	..	2.27	..	0.97 .. 3
July ..	..	0.75	..	0.57	..	1.68 .. 5
August	..	2.97	..	1.64	..	0.27 .. 4
September	..	3.07	..	0.97	..	3.22 .. 12
October	..	0.52	..	5.33	..	1.68 .. 9
November	..	1.88	..	4.47	..	4.18 .. 8
December	..	4.44	..	3.17	..	1.61 .. 12
		<hr/>		<hr/>	<hr/>	<hr/>
		32.45		26.50	25.11	104

Year	1899	..	..	25·11	..	..	104
	1898	..	..	26·50	..	..	124
	1897	..	..	32·45	..	..	133
	1896	..	..	28·35	..	..	128
	1895	..	..	30·27	..	..	136
	1894	..	..	37·73	..	..	167
	1893	..	..	26·21	..	..	130
	1892	..	..	27·62	..	..	129
	1891	..	..	32·89	..	..	168
	<hr/>						
	Mean	..	..	29·68			135

The diameter of the funnel is 8 inches ; it is placed 4ft, 6in. above the ground, and 30 feet above sea level.

The gauge was moved in June, 1899, to Warningcamp about one mile north-east of the old site.

#### INQUESTS.

One inquest was held : Male, 77 years, found drowned in the river Arun.

There were no deaths returned as “not certified” during the year.

## ARUNDEL URBAN DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the ten years, 1886-95, and in 1896-99.

Year.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1886-90 ...	292	42	31	16	21	103	79
1891-95 ...	206	33	10	10	7	64	82
Per 1,000 ...	1,000	151	82	52	56	335	324
1896... ..	32	8	3	—	—	9	12
1897... ..	49	11	6	1	1	15	15
1898... ..	49	7	7	—	1	12	22
1899... ..	48	8	3	—	2	15	20



## ARUNDEL URBAN DISTRICT.

TABLE 2.—Showing the Deaths from various causes in the seventeen years, 1883-99.

Year.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1883-85 ..	—	—	1	—	—	—	—	—	—	—	—	1	1	3	—	—	6
1886-90 ...	—	16	7	—	—	11	1	—	1	—	1	1	1	3	1	2	45
1891-95 ...	—	2	—	—	—	2	—	—	—	—	—	1	1	3	—	11	20
1896 ...	—	—	2	—	—	1	—	—	—	—	—	—	1	1	—	—	5
1897 ...	—	—	—	—	—	3	—	—	—	—	—	—	11	—	—	1	15
1898 ...	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	3	5
1899 ...	—	—	—	—	—	1	—	—	—	—	—	1	—	2	—	3	7
Total ...	—	18	12	—	—	18	1	—	1	—	1	4	15	12	1	20	103

## ARUNDEL URBAN DISTRICT

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in the seventeen years, 1883-99.

PERIOD.	Deaths during the years 1883-99 from								Mean Annual Death-rate per 100,000 living from			
	Population in middle of Period.	All Diseases.	Zymotic Disease	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	Heart Disease.
1883-85	..	122	6	22	20	13	1,478	72	267	242	157	157
1886-90	..	292	43	32	37	32	2,147	312	232	269	233	233
1891-95	..	206	9	13	33	40	1,560	68	99	250	303	303
1896	..	32	5	3	4	2	1,212	189	113	151	76	76
1897	..	49	14	3	4	5	1,856	530	113	227	189	189
1898	..	49	2	1	4	7	1,856	76	38	151	265	265
1899	..	48	4	5	1	9	1,818	151	114	38	341	341

(A)—Table of DEATHS during the Year 1899, in the ARUNDEL

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2	3
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and upwards. (h)		Small Pox. (1)	Scarlatina. (2)	Diphtheria. (3)
Arundel Urban District ...	45	8	3	—	2	12	20	Under 5 ..... 5 upwards.			
								Under 5 ..... 5 upwards.			
								Under 5 ..... 5 upwards.			
								Under 5 ..... 5 upwards.			
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								Under 5 ..... 5 upwards.			
								Under 5 ..... 5 upwards.			
								Under 5 ..... 5 upwards.			
TOTALS.....	45	8	3	—	2	12	20	Under 5 ..... 5 upwards.			
The subjoined numbers have also to be taken in											
Deaths occurring outside the District among persons belonging thereto.....	3	—	—	—	—	3	—	Under 5 ..... 5 upwards.			
Deaths occurring within the District among persons not belonging thereto...								Under 5 ..... 5 upwards.			



## URBAN DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

[illegible]

ent in judging of the above records of mortality.

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## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASE

Officer of Health, during the year 1899, in the ARUNDE

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS COMING TO THE KNOWLEDGE					
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5	6
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS Typhus.	Enteric or Typhoid.
(a)	(b)	(c)	(d)	(e)						
Arundel Urban District ...	2,640	2,640	68	Under 5 5 upwards.			1 3			
				Under 5 5 upwards.						
				Under 5 5 upwards.						
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				Under 5 5 upwards.						
TOTALS .....	2,640	2,640	68	Under 5 5 upwards.			1 3			

INFECTIOUS SICKNESS, coming to the knowledge of the Medical  
an District; classified according to DISEASES, AGES, and LOCALITIES.

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# HORSHAM URBAN DISTRICT.

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pp. 191 et seq.

## HORSHAM URBAN DISTRICT.

					1881.	1891.
Area in Statute Acres	..	..	..	..	833	839
Number of Inhabited Houses	..	..	..	..	1,396	1,657
„ Uninhabited	„	..	..	..	113	156
„ Building	„	..	..	..	12	18
Population	..	..	..	..	6,874	8,087
Males	..	..	..	..	3,223	3,796
Females	..	..	..	..	3,651	4,291
Persons to a House..	..	..	..	..	4.94	4.88

### BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 241 children were registered ; of these 127 were male, and 114 were female.

Estimating the population in the middle of the year at 9,000, the birth-rate was equal to 26.8 per 1,000 persons living.

The births and birth-rate in the district during the past ten years are here shown :—

Year.	Births.	Birth-rate.	Year.	Births.	Birth-rate.
1890	.. 227	.. 28.5	1895	.. 221	.. 25.8
1891	.. 232	.. 28.6	1896	.. 215	.. 24.8
1892	.. 211	.. 25.7	1897	.. 255	.. 28.9
1893	.. 220	.. 26.3	1898	.. 236	.. 26.5
1894	.. 229	.. 27.1	1899	.. 241	.. 26.8

The mean annual number of births is 229, and the mean annual birth-rate is 26.9 per 1,000 persons living.

In England and Wales the birth-rate during the year was 29.3 per 1,000 persons living, a rate 1.0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

In each Quarter of the past six years the births were thus registered :—

	1894.	1895.	1896.	1897.	1898.	1899.
First Quarter ..	67	59	53	64	61	62
Second Quarter ..	58	55	54	66	50	49
Third Quarter ..	54	49	61	58	56	70
Fourth Quarter ..	50	58	47	67	69	60
<hr/>						
Total ..	229	1	215	255		241

### GENERAL MORTALITY.

There were 151 deaths registered in this district during the year 1899, but from this number must be deducted the death of one person in Horsham Cottage Hospital not belonging to this district, and to this number must be added the deaths of thirteen persons in Horsham Work-house, which is outside the urban area, leaving the corrected total at 160.

Estimating the population at 9,000, the death-rate was equal to an annual rate of 17·8 per 1,000.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000 of population, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

In each quarter of the past six years the deaths were thus recorded :—

	1894.	1895.	1896.	1897.	1898.	1899.
First Quarter ..	31	45	35	34	45	37
Second Quarter ..	27	33	22	32	26	28
Third Quarter ..	29	30	30	40	34	43
Fourth Quarter ..	25	39	39	21	26	52
<hr/>						
	112	147	126	127	131	160

The deaths and death-rate in the past ten years are here shown :—

Year.	Deaths.	Death-rate.	Year.	Deaths.	Death-rate.
1890 ..	131	16·4	1895 ..	147	17·1
1891 ..	163	20·1	1896 ..	126	14·5
1892 ..	163	19·7	1897 ..	127	14·4
1893 ..	161	19·3	1898 ..	131	14·7
1894 ..	112	13·2	1899 ..	160	17·8

The mean annual number of deaths is 142, and the mean annual death-rate is equal to 16·7 per 1,000 persons living.



## INFANT MORTALITY.

There were 34 deaths of infants under one year of age, and as there were 241 births, the rate of infant mortality was equal to 141 per 1,000 children born.

In 1892 the ratio was 123, in 1893 it was 136, in 1894 it was 118, in 1895 it was 109, in 1896 it was 79, in 1897 it was 133, and in 1898 it was 106 per 1,000 registered births.

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000 during the past year, the mean proportion in the preceding ten years having been 151.

## ZYMOTIC MORTALITY.

There were four deaths from zymotic diseases in the case of those which are notifiable, and there were twenty-one in the other class where the number of cases cannot be obtained. The zymotic mortality was at the rate of 2·78 per 1,000.

					Cases.	Deaths.
Fever.	Small Pox	..	..	..	none	none
	Scarlatina	..	..	..	9	none
	Diphtheria	..	..	..	27	3
	Membranous Croup	..	..	..	none	none
	Typhus	..	..	..	none	none
	Enteric	..	..	..	2	1
	Continued	..	..	..	none	none
	Relapsing	..	..	..	none	none
	Puerperal	..	..	..	none	none
	Cholera	..	..	..	none	none
	Erysipelas	..	..	..	none	none
Total					38	4

In the other class the deaths were thus recorded :—

Measles	..	..	..	none
Whooping Cough	..	..	..	none
Diarrhœa and Dysentery	..	..	21	
Rheumatic Fever	..	..	..	none
Total				21

The Infectious Disease (Notification) Act, 1889, and the Infectious Diseases (Prevention) Act, 1890, came into operation on the 8th day of July, 1896.

These Acts are now, therefore, adopted throughout the whole of the combined district of West Sussex.

The prevalence in each quarter of 1899 and in 1897-8 of each notifiable disease is shown in the following table:—

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total 1899.	1898.	1897.
Small Pox .. ..	—	—	—	—	—	—	—
Scarlatina .. ..	—	—	2	7	9	3	1
Diphtheria .. ..	—	2	9	16	27	5	6
Membranous Croup	—	—	—	—	—	—	—
Enteric Fever ..	1	1	—	—	2	1	—
Continued Fever ..	—	—	—	—	—	—	—
Puerperal Fever ..	—	—	—	—	—	—	—
Erysipelas .. ..	—	—	—	—	—	—	—
Total .. ..	1	3	11	23	38	9	7

### HORSHAM COTTAGE HOSPITAL.

This useful and excellent Institution was erected by public subscriptions and donations at a total cost of £2,089 12s. 5d. It is situated in Hurst Road, and the buildings were opened in June, 1892; the first patient was admitted on July 13th, 1892.

The mean cost of each patient is £5 18s., and there are eight beds, the mean annual cost of a bed is £47 4s.

Year.	Receipts. £ s. d.			Expenditure. £ s. d.			Balance. £ s. d.			In-Patients.			Deaths.
										Hor- sham.	Other Parishes.	Total.	
1892	283	18	1	134	4	11	149	13	2	14	12	26	None
1893	401	0	5	330	16	6	70	3	11	26	34	60	2
1894	386	17	0	365	11	9	21	5	3	34	29	63	4
1895	429	10	5	412	4	9	17	5	8	40	25	65	3
1896	396	0	4	389	17	2	6	3	2	38	24	62	3
1897	411	10	11	340	7	9	71	3	2	38	34	72	3
1898	435	17	3	368	10	8	67	7	6	39	32	71	3
1899	410	3	9	515	10	8	105	6	11	36	24	60	1

The facts regarding the Water Supply and the Sewerage System have been kindly supplied me by Mr. Renwick, the Town Surveyor, who has so efficiently carried out the work.

### WATER SUPPLY.

New services laid for domestic use .. ..	51
New services laid for other use .. ..	7
	<hr/>
	58
No. of Gallons of Water pumped to the Star Reservoir	54,770,834
No. of Gallons of Water pumped to waste for machinery repairs purposes .. .. .	83,594
	<hr/>
No. of Gallons of Water pumped, total .. ..	54,854,428
Greatest Number of Gallons pumped in one week (August 16th to 22nd) .. .. .	1,323,000

Samples of the water have been submitted to the Public Analyst for examination, and he has reported upon them to the Council.

The water pumped to the Reservoir during the year was 1,578,691 gallons less than the quantity pumped during 1898; and this although 58 new services were connected to the mains. This is accounted for in a great measure by the stoppage of waste caused by defective fittings, and leaks both in service pipes and mains.

The mains in Bishopric and Springfield Road have been re-laid. In both cases the old mains were in very bad condition.

Analytical Report by Dr. Otto Hehner on a sample of water received on June 24th, 1899.

HORSHAM TOWN SUPPLY: 100,000 parts of the water were found to contain :—

Chlorine	..	..	..	..	2.20
Sulphuric Acid	..	..	..	..	2.40
Nitric Acid	..	..	..	..	0.22
Free Ammonia	..	..	..	..	0.0020
Albuminoid Ammonia	..	..	..	..	0.0057
Oxygen absorbed from permanganate in 15 min.					0.0388
Ditto in 4 hours, both at 80 F.	..	..	..	..	0.0664
Total Solids, dried at 212 F.	..	..	..	..	35.44
Loss of Ignition	..	..	..	..	2.88
Total Hardness	..	..	..	..	1.0
Appearance in 2ft. tube.	..	..	..	..	yellowish, somewhat turbid
Reaction	..	..	..	..	somewhat alkaline
Total number of organisms per cubic centimetre	..	..	..	..	209
Sewage bacteria	..	..	..	..	none

This supply contains but a very moderate amount of organic matter, and does not show either from the chemical analysis or from the bacterioscopic examination any indications of organic (sewage) pollution.

The supply is exceedingly soft, and is practically devoid of hardness. The mineral contents, which are moderate, consist entirely of salts of sodium, mainly sodium carbonate, which gives to the water a decidedly alkaline reaction. The composition of the supply is that of a perfectly pure and unpolluted water from the lower Tunbridge beds.

On comparing the above analysis with one made by me in 1897, it will be seen that the water has undergone practically no change, but the appearance of the water is at the present time somewhat better than it was formerly.

The supply is still turbid from the presence of exceedingly minute particles of mineral matter. This turbidity is entirely harmless.

The supply is very well adapted for drinking, cooking, and washing.



## SYSTEMATIC INSPECTION.

The following is the summary of work done during the year 1899, under the supervision of the Sanitary Inspector:—

New dwelling houses completed and certificated .. ..	38
Matters reported to the Council .. ..	106
Notices served .. ..	8
Pan and container closets replaced by closets of modern construction .. ..	7
Pan and container closet fixed in contravention of by-laws, and which the Council compelled property owner to remove .. ..	1
Defective W.C. fittings .. ..	3
Defective W.C. fittings, proceedings threatened .. ..	1
W.C.'s which have been improved or provided with flushing cisterns .. ..	8
Nuisance from disused W.C., the trap becoming dry .. ..	1
Choked soil drains .. ..	8
Defective soil drains .. ..	2
Defective soil drains beneath floors diverted .. ..	2
Cesspools abolished .. ..	2
Insanitary sinks altered and improved .. ..	23
Sink drains connected to soil, drain without any trap .. ..	4
Bell traps replaced by stoneware gully traps .. ..	68
Cellar drain connected to soil drain without any trap .. ..	1
Flooded cellars, flushed and cleaned by Council .. ..	2
Defective drain in roadway re-laid by Council .. ..	1
Brewery drain diverted from storm water drain to sewer .. ..	1
Tannery drain re-laid .. ..	1
Houses re-drained under inspection .. ..	14
Cases of over-crowding .. ..	3
Accumulations of refuse .. ..	3
Nuisances arising from keeping pigs .. ..	4
Nuisances arising from killing pigs .. ..	1
Nuisances arising from keeping poultry .. ..	1
Cases of notified diseases attended to .. ..	35
Cases of notified diseases, rooms disinfected after .. ..	16
Dininfectants supplied, cases .. ..	26

## DRAINAGE AND SEWAGE.

A drain from the brewhouse and cellars of West Street Brewery has been diverted to the sewers, as the liquor from this drain found its way into the river, and did much to render it foul.

At the Tannery a very defective drain from the tan pits has been relaid in stoneware socket pipes with cement joints. The leakage from this drain found its way into a brook, and so to the river.

At the Gas Works it has been found that there exists a drain connected to the main storm water drain in Springfield Road, and into which at times foul liquor from the gasometer tanks flows. As the

liquor ultimately gets into the river, notice has been served upon this Gas Company to disconnect the drain from our storm water drain, and to connect it with the main sewer.

Several storm water drains have been cleaned and altered, and many new street gullies have been provided.

At the Broadbridge Sewage Farm during the year 50,439,536 gallons of sewage were treated.

Excellent crops are obtained, and the farm appears to be in every way a success.

### PUBLIC ELEMENTARY SCHOOLS.

There are five Public Elementary Schools which are in a fair condition.

### COMMON LODGING HOUSES.

There are two Common Lodging Houses, both of which are well kept.

### BAKEHOUSES.

These are twenty-two in number, and they are kept in good sanitary condition.

### SLAUGHTER HOUSES.

There are eight Slaughter Houses in the district, and these have been inspected during the year and kept fairly.

### COWSHEDS AND DAIRIES.

There are ten Cowsheds and Dairies, but they are nearly all on a small scale. There are twenty-five dairymen and cow-keepers on the register.

### PROCEEDINGS BEFORE THE MAGISTRATES.

No proceedings were taken before the Magistrates during the year.

## INQUESTS.

Inquests were held in eleven cases:—Male, 42 years, apoplexy; male, 5 years, sickness and diarrhœa, due to intussusception caused by worms; female, 40 years, heart failure; male, 1 day, accidentally suffocated in bed; male, 1 year, convulsions; male, 8 months, syncope; male, 8 months, syncope; female, 73 years, shock, fractured thigh; female, 21 years, gangrene, blood poisoning; female, 34 years, liver diseases; male, 61 years, accidentally run over and killed on railway.

There were seven deaths returned as “not certified” during the year:—Female, 5 minutes, born prematurely; female, 1 hour, born prematurely; male, 23 months, diarrhœa; female, 8 months, diarrhœa; female, 2 months, diarrhœa; male, 60 years, heart disease; female, 86 years, bronchitis.



# HORSHAM URBAN DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the eight years, 1892-99.

Year.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1892... ..	163	26	20	6	9	42	60
1893... ..	161	30	21	10	5	47	48
1894... ..	112	14	7	3	3	44	41
1895... ..	147	24	21	6	8	43	45
1896... ..	126	17	10	8	7	36	48
1897... ..	127	34	9	2	5	36	41
1898... ..	131	25	8	4	5	35	54
1899... ..	160	34	8	7	8	48	55
Total ...	1,127	204	104	46	50	331	392

# HORSHAM URBAN DISTRICT.

TABLE 2.—Showing the Deaths from various causes in the eight years, 1892-99.

Year.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1892 ..	—	—	2	—	—	—	—	—	—	—	—	—	4	3	1	12	22
1893 ...	4	—	3	2	—	3	—	—	—	—	1	1	2	3	—	—	19
1894 ...	—	—	2	—	—	—	—	—	1	—	—	—	—	—	—	4	7
1895 ...	—	—	—	—	—	—	—	—	—	—	—	9	6	3	—	5	23
1896 ...	—	—	2	—	—	1	—	—	—	—	1	3	2	2	—	—	11
1897 ...	—	—	1	—	—	—	—	—	—	—	—	—	5	3	—	—	9
1898 ...	—	—	—	—	—	—	—	—	—	—	—	1	1	10	—	6	18
1899 ...	—	—	3	—	—	1	—	—	—	—	—	—	—	21	—	6	31
Total ...	4	—	13	2	—	5	—	—	1	—	2	14	20	45	1	33	140

HORSHAM URBAN DISTRICT.

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in the eight years, 1892-99.

PERIOD.	Deaths during the years 1892-99 from						Mean Annual Death-rate per 100,000 living from				
	Population in middle of Period.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
1892 .. ..	8,260	163	10	11	36	17	1,973	121	134	437	206
1893 .. ..	8,350	161	19	15	25	13	1,928	227	180	300	156
1894 .. ..	8,460	112		10	12	15	1,324	35	118	142	177
1895 .. ..	8,580	147	18	11	25	12	1,713	210	128	291	140
1896 .. ..	8,675	126	11	10	11	21	1,452	127	115	127	242
1897 .. ..	8,830	127	9	7	12	15	1,438	102	79	136	170
1898 .. ..	8,900	131	12	15	13	16	1,472	135	168	146	180
1899 .. ..	9,000	160	25	13	16	23	1,778	278	145	177	256



(A)—Table of DEATHS during the Year 1899, in the HORSHAM

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and up-wards. (h)		Small Pox. (j)	Scarlatina. (k)
Horsham Urban District ...	150	34	8	7	8	44	49	Under 5 ..... 5 upwards.		
Horsham Cottage Hospital ...	1	—	—	—	1	—	—	Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
TOTALS.....	151	34	8	7	9	44	49	Under 5 ..... 5 upwards.		
The subjoined numbers have also to be taken in										
Deaths occurring outside the District among persons belonging thereto.....	10	—	—	—	—	4	6	Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...	1	—	—	—	1	—	—	Under 5 ..... 5 upwards.		

BAN DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

TALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

[illegible]

at in judging of the above records of mortality.

											2		3			5	5
										1							1

## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES

Officer of Health, during the year 1899, in the HORSHA.

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER.					
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5	6
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVER.	
(a)	(b)	(c)	(d)	(e)					Typhus.	Enteric or Fever.
Horsham Urban District ...	8,087	8,990	241	Under 5 5 upwards.		2 7	5 22			
Horsham Cottage Hospital ...	—	10	—	Under 5 5 upwards.						
				Under 5 5 upwards.						
				Under 5 5 upwards.						
				Under 5 5 upwards.						
				Under 5 5 upwards.						
				Under 5 5 upwards.						
				Under 5 5 upwards.						
				Under 5 5 upwards.						
				Under 5 5 upwards.						
				Under 5 5 upwards.						
				Under 5 5 upwards.						
TOTALS . . .	8,087	9,000	241	Under 5 5 upwards.		2 7	5 22			



INFECTIOUS SICKNESS, coming to the knowledge of the Medical  
District; classified according to DISEASES, AGES, and LOCALITIES.

[illegible]

PORTSLADE-BY-SEA URBAN DISTRICT.

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pp. 207 et seq.

## PORTSLADE-BY-SEA URBAN DISTRICT.

						1891.
Area in Statute Acres	..	..	..	..	..	—
Number of Inhabited Houses	..	..	..	..	..	825
„ Uninhabited	„	..	..	..	..	37
„ Building	„	..	..	..	..	2
Population	..	..	..	..	..	4,240
Males	..	..	..	..	..	2,132
Females	..	..	..	..	..	2,108
Persons to a House	..	..	..	..	..	5.14

Portslade-by-Sea is now an Urban District, it is a small, but populous area, cut out of the old Parish of Portslade, which was in the Steyning East Rural District, on March 31, 1898; the new Portslade Parish remains as a Rural area, with a population of about 250.

### BIRTHS AND BIRTH-RATE.

During the year 1899, the births of 193 children were registered; of these 94 were male, and 99 were female.

Estimating the population in the middle of the year at 5,000, the birth-rate was equal to an annual rate of 38.3 per 1,000 persons living.

In England and Wales the birth-rate during the year was 29.3 per 1,000 persons living, a rate 1.0 per 1,000 below the mean rate in the ten years, 1889-98, and lower than in any other year on record.

The following table shows the births and birth-rate during three periods:—

Birth-rate.		Births.			Birth-rate.		
1877-84.	1893-97.	1897.	1898.	1899.	1897.	1898.	1899.
39.2	34.9	164	177	193	34.3	36.5	38.3



The births were thus distributed in 1898 and in each quarter of 1899 :—

	1898.	M.	F.	Total.
First Quarter ..	28	24	29	53
Second Quarter ..	58	19	33	52
Third Quarter ..	52	19	17	36
Fourth Quarter ..	39	32	20	52
Total ..	177	94	99	193

### GENERAL MORTALITY.

There were 90 deaths registered in this district, but to this number must be added the deaths of three persons in New Shoreham Work-house belonging to this district, leaving the corrected total at 93.

Estimating the population at 5,000, the death-rate was equal to an annual rate of 18·3 per 1,000.

In country places throughout England and Wales the rate of mortality in 1899 was equal to 16·3 per 1,000, or 0·5 per 1,000 below the mean rate in the ten years, 1889-98.

In each quarter of the past year the deaths were thus recorded :—

	1898.	M.	F.	Total.
First Quarter ..	36	8	11	19
Second Quarter ..	24	9	9	18
Third Quarter ..	19	11	14	25
Fourth Quarter ..	16	11	20	31
	95	39	54	93

The deaths and death-rate in the past six years are here shown :—

Year.	Deaths.	Death-rate.
1894 .. ..	55	12·5
1895 .. ..	55	11·4
1896 .. ..	72	15·5
1897 .. ..	80	16·7
1898 .. ..	95	19·6
1899 .. ..	93	18·3

### INFANT MORTALITY.

There were 24 deaths of infants under one year of age, and as there were 193 births, the rate of infant mortality was equal to 25·5 per 1,000 children born.

In England and Wales the proportion of deaths under one year of age to registered births was 163 per 1,000 during the past year, the mean proportion in the preceding ten years having been 151.

### ZYMOTIC MORTALITY.

There was one death from zymotic disease in the case of those which are notifiable, and there were three in the other class where the number of cases cannot be obtained. The zymotic mortality was at the rate of 0·80 per 1,000.

					Cases.	Deaths.
Fever.	Small Pox	..	..	..	none	none
	Scarlatina	..	..	..	17	none
	Diphtheria	..	..	..	8	none
	Membranous Croup		..	..	none	1
	Typhus	..	..	..	none	none
	Enteric	..	..	..	4	none
	Continued	..	..	..	none	none
	Relapsing	..	..	..	none	none
	Puerperal	..	..	..	1	none
	Cholera	..	..	..	none	none
					<hr/>	<hr/>
Total					30	1

In the other class the deaths were thus recorded :—

Measles	..	..	..	..	none
Whooping Cough	..	..	..	..	2
Diarrhœa and Dysentery	..	..	..	..	1
Rheumatic Fever	..	..	..	..	none
					<hr/>
Total					3

The prevalence in each quarter of 1899 of each notifiable disease is shown in the following table :—

			1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.
Small Pox	..	..	—	—	—	—	—
Scarlatina	..	..	5	1	2	9	17
Diphtheria	..	..	2	3	2	1	8
Membranous Croup		..	—	—	—	—	—
Enteric Fever	..	..	2	—	2	—	4
Continued Fever	..	..	—	—	—	—	—
Puerperal Fever	..	..	1	—	—	—	1
Erysipelas	..	..	—	—	—	—	—
			<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total			10	4	6	10	30

## WATER SUPPLY.

The District is well provided for by a constant supply of good water from a main under pressure supplied by the Brighron Corporation, and upon its excellent quality the good health of the district mainly depends.

## DRAINAGE AND SEWAGE.

Messrs. Cooke & Co's contract of £17,545 for the construction of the main intercepting sewer and outfall for the combined system of Portslade-by-Sea and Southwick is being carried out, and this work will be completed during the present year.

Their contract of £5,584 for laying street drains in Portslade-by-Sea has been executed, and while this work was in progress an opportunity was given owners of property to have connections brought up to the boundary of their premises by the Contractor, while the trenches were opened under a schedule of prices, obtainable from the Surveyor.

Twenty-three owners availed themselves of this opportunity, the connections being brought up to the boundary of thirty-one houses ready for connection to the house drains as soon as the outfall is completed.

The intercepting sewer commences at the eastern extremity of the district, and is continued along the Wellington Road and Lower Shoreham Road, through Fishersgate to the outfall in Southwick.

This sewer commences with 12 inch pipes increasing to 18 inches, and finishing in Southwick Parish with a 6 feet circular brick tank. The system provides that the surface water shall be kept out of the sewers as far as possible. It will prove a great relief to the district when the scheme is in working order, the subsoil of the district having become so saturated with sewage, many of the old cesspools have now quite ceased to receive any soakage whatever, and the new ones being very shallow require constant emptying.

Below is an abstract from the Surveyor's books showing the expense and cost attached to the system adopted which has proved so successful in the district, and upon this mainly lies the good health which prevails in the district.

## COST OF THE BEXLEY SYSTEM.

Date.	No. Emptied.	Horse hire.			Labour.			Disinfectants.		
		£	s.	d.	£	s.	d.	£	s.	d.
1896	287	92	8	5	55	0	9	4	0	0
1897	654	183	0	10	109	3	7	8	17	3
1898	822	178	0	8½	112	5	9½	8	5	2
1899	1128	181	3	1	133	5	4	12	7	6



An additional pump and hose is now used in distributing the sewage and storm water (conveyed through a 9 inch sewer from property at the northern end of the district) on to arable land to minimise the contents overflowing to the northern boundary of Old Shoreham Road. The cost of this work for the year has been £63 2s.

### SCAVENGING AND CLEANSING.

The work of scavenging is well done, and the streets are kept clean.

A contract is entered into for removing the house refuse fortnightly on a street schedule, under the superintendence of the Sanitary Inspector, and all refuse and ashes have to be removed to a fit and proper place provided by the Contractor for its reception north of the railway, and 100 yards from any inhabited house. The tender for the year was £100, the increased amount being accounted for by the rapidly increasing neighbourhood.

Most of the houses have back yards in which there is a fixed receptacle, but to these yards there is no means of access, except through the houses. The Contractor's men have to pass through the kitchen two or three times to empty an ashpit, and this is much objected to by the inmates, especially in wet and stormy weather.

A more sanitary system would be to do away with the wet middens and the provision of a receptacle of galvanized iron or other non-absorbent material, fitted with a cover to receive the refuse.

### COWSHEDS AND DAIRIES.

Regulations under the Contagious Diseases (Animals) Act, 1886, and the Dairies, Cowsheds, and Milk Shops Order of 1885 were adopted on April 26th, 1887, and came into force on June 1st, 1887.

### BAKEHOUSES.

These have been periodically visited, and any breach of the Act has been duly rectified. Two are not occupied.

### SLAUGHTER HOUSES.

The two Slaughter Houses are frequently visited and found clean, the refuse of offal being removed as soon as possible. The walls are regularly limewashed. One carcase of a cow was condemned, and buried in the presence of the Sanitary Inspector.

## MARGARINE ACT.

Very little is sold, and in places where sold the provisions of the Act of 1887 is observed.

## INFECTIOUS DISEASE.

All cases of Infectious Disease have been enquired into, and the necessary precautions carried out with regularity and efficiency by the Sanitary Inspector.

Disinfectants are supplied free of charge.

The disinfection of the premises is afterwards carried out, and the notices under Section 36, Public Health Act, 1875, served where necessary for cleansing and purifying of the premises.

## HOSPITAL ACCOMMODATION.

The Hove Corporation (by agreement) provides two beds at the Hangleton Hospital for this District, on the following terms :

1. The Council to have the use of two beds in the Hove Hospital, Hangleton. Provided that whenever and as long as there are 22 patients in all in the Hospital the use is to be limited to one bed, and whenever and as long as there are 28 patients in all in the Hospital the user is to cease for the time being.

2. A fixed charge to be paid by the Council for retention of the above beds.

3. When any bed is actually occupied a weekly sum to be also paid by the Council at the rates set forth in the under-mentioned scale.

SCALE :—Weekly sum to be paid for each bed actually occupied :—

If patient is suffering from—

Small Pox	..	..	..	£5	5	0
Typhoid	..	..	..	3	3	0
Diphtheria	..	..	..	3	3	0
Scarlet Fever..	..	..	..	2	2	0
Other Zymotic Diseases	..		..	2	2	0

Actual expense incurred in the removal of the patient and in the use of the ambulance is also paid by the Council.

This Council also pays a retaining fee of £30 per year to the Hove Council for the two beds at the Hospital.

The arrangement has always worked very satisfactory, and although the Hospital on some occasions has been full, a bed has always been provided by the Hove Council on very short notice.

### NEW HOUSES.

Twenty-nine new houses have been erected, and three new roads constructed under the By-laws in force.

### HOUSE-TO-HOUSE INSPECTION.

This work is carried out as occasion permits during the year.

### PUBLIC MORTUARY.

Under Section 141 of the Public Health Act, 1875, a much needed Mortuary has been provided for the district.

The building has been erected on a site at the Council's depôt at a cost of £49, from plans prepared by the Surveyor, Mr. A. Taylor Allen. It is provided with gas and water, and it is sufficiently lighted and ventilated.

### BY-LAWS IN FORCE IN THE DISTRICT.

By-laws were made on October 4th, 1892, by the Steyning Union, acting as the Rural Sanitary Authority with respect to new streets, and Buildings, and in compliance with the order of the Local Government Board remains in force until such times that the *new* By-laws made during the year have been allowed by the Local Government Board.

By-laws were also made by the above Authority in 1889 for the prevention of Nuisances, arising from snow, filth, dirt, ashes, and rubbish, and for the prevention of the keeping of Animals on premises so as to be injurious to health, these were allowed by the Local Government Board on February 21st, 1889, and still remain in force.

The Council has adopted the new Model Regulations with respect to Dairies, Cowsheds, and Milkshops; these will come into force on and after February 10th, 1900, when the old regulations will cease to exist.



## SYSTEMATIC INSPECTION.

The following is a list of the routine work during the year 1899, as recorded in the books of the Sanitary Inspector, Mr. A. Taylor Allen :

No. of Houses and Premises inspected	.. ..	294
No. of Houses, &c., reported	.. ..	68
No. of Nuisances abated by verbal notice	.. ..	37
No. of Nuisances abated by written notice	.. ..	17
No. of Houses disinfected and fumigated	.. ..	34
No. of Houses cleansed and whitewashed	.. ..	42
No. of Defective drains taken up and relaid	.. ..	10
No. of Insanitary and defective w.c.'s remedied	.. ..	3
Animals so kept as to be a nuisance	.. ..	3
Cases of Overcrowding reported and abated	.. ..	4
Houses reported without Water Supply	.. ..	1

## INQUESTS.

Inquests were held in nine cases :—Male, 55 years, syncope, sudden failure of heart; male, 9 weeks, inability to assimilate food; female, 69 years, heart failure; male, 3 years, convulsion fit from flatulent dyspepsia; male, 10 years, accidentally drowned while bathing; female, newly born, asphyxia, want of attention at birth; female, 61 years, heart failure; male, 14 years, asphyxia, cart wheel resting on chest; female, newly born, want of attention at birth.

There were no deaths returned as “not certified” during the year.

PORTSLADE-BY-SEA URBAN DISTRICT.

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TABLE 1.—Showing the Deaths at various groups of ages in the five years, 1891-95, and in 1896-99.

Year.	At all ages.	Under 1 Year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards.
1891-95 ...	342	112	43	20	13	81	73
Per 1,000 ...	1,000	328	126	58	38	237	213
1896... ..	72	26	5	3	1	20	17
1897... ..	80	23	8	6	2	25	16
1898... ..	95	34	14	4	4	21	18
1899... ..	93	24	10	5	7	20	27

PORTSLADE-BY-SEA URBAN DISTRICT.

TABLE 2.—Showing the Deaths from various causes in the five years, 1891-95, and in 1896-99.

Year.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea.	Rheumatic Fever.	Influenza.	Total.
					Typhus.	Enteric.	Continued.	Relapsing.	Puerperal.								
1891-95 ...	—	2	8	3	—	3	—	—	—	—	2	9	16	15	3	9	70
1896 ...	2	—	1	—	—	1	—	—	—	—	—	1	2	3	—	—	10
1897 ...	—	—	—	—	—	—	—	—	—	—	—	8	1	—	1	1	11
1898 ...	—	—	1	—	—	1	—	—	1	—	—	10	—	6	—	2	21
1899 ...	—	—	—	1	—	—	—	—	—	—	—	—	2	1	—	2	6
Total ...	2	2	10	4	—	5	—	—	1	—	2	28	21	25	4	14	118



## PORTSLADE-BY-SEA URBAN DISTRICT.

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in the five years, 1891-95 and in 1896-99.

PERIOD.	Deaths during the years 1891-99 from										Mean Annual Death-rate per 100,000 living from				
	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.					
1891-95	342	61	22	54	32	1,572	280	101	248	147					
1896	72	10	2	11	10	1,548	215	43	237	215					
1897	80	10	7	10	11	1,673	209	146	209	230					
1898	95	19	3	12	8	1,958	392	62	247	165					
1899	93	4	6	17	5	1,830	80	120	340	100					

(A)—Table of DEATHS during the Year 1899, in the PORTSLADE-

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							(i)	1	2
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and upwards. (h)		Small Pox. (j)	Scarlatina. (k)
Portslade-by-Sea Urban District	90	24	10	5	7	19	25	Under 5 ..... 5 upwards.		
•								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
								Under 5 ..... 5 upwards.		
TOTALS.....	90	24	10	5	7	19	25	Under 5 ..... 5 upwards.		
The subjoined numbers have also to be taken										
Deaths occurring outside the District among persons belonging thereto.....	3	—	—	—	—	1	2	Under 5 ..... 5 upwards.		
Deaths occurring within the District among persons not belonging thereto...								Under 5 ..... 5 upwards.		

URBAN DISTRICT, classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN  
UNDER FIVE YEARS OF AGE.

[illegible]

ant in judging of the above records of mortality.

[illegible]



## (B)—TABLE OF POPULATION, BIRTHS, AND OF NEW CAS

Officer of Health, during the year 1899, in the PORTSLADE-BY-SEA

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF S COMING TO THE KNOWLE				
	Last Census	Esti- mated to mid- dle of 1899.			1	2	3	4	5
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEB. Typhus.
(a)	(b)	(c)	(d)	(e)					
Portslade-by-Sea Urban District	4,240	5,000	193	Under 5 ..... 5 upwards.		8 ..... 9		8	
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
				Under 5 ..... 5 upwards.					
TOTALS .....	4,240	5,000	193	Under 5 ..... 5 upwards.		8 ..... 9		8	

OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of the Urban District; classified according to DISEASES, AGES, and LOCALITIES.

[illegible]

